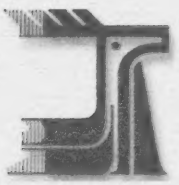
ANNUAL REPORT
TO
THE MINISTER OF THE ENVIRONMENT
AND
THE CANADIAN ENDANGERED SPECIES CONSERVATION COUNCIL

FROM

THE COMMITTEE ON THE STATUS OF ENDANGERED WILDLIFE IN CANADA
(COSEWIC)

September 16, 2004



COMMITTEE ON THE
STATUS OF ENDANGERED
WILDLIFE IN CANADA

COMITÉ SUR LA SITUATION
DES ESPÈCES EN PÉRIL
AU CANADA

July 19, 2004

The Honourable David Anderson
Minister of the Environment and co-chair of the Canadian
Endangered Species Conservation Council
Government of Canada
OTTAWA ON K1A 0H3

Dear Minister Anderson:

The 2004 Annual Report to the Canadian Endangered Species Conservation Council (CESCC) from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is respectfully submitted to you and CESCC in accordance with the requirements under the *Species at Risk Act* (SARA).

This report includes a summary of all activities undertaken by COSEWIC over the past year (Section 26 of SARA).

This report provides the names, justifications and biosketches of members whom COSEWIC recommends for your appointment effective January 1, 2005 (Section 16 of SARA).

Also included for your consideration is a list of the species status assessments (with reasons) from the November 2003 and May 2004 Species Assessment Meetings (Section 25 of SARA).

In addition, this report includes for your approval, documents outlining significant COSEWIC operations and procedures changes.

This report also contains a copy of the May 2004 publication "Canadian Species at Risk" which provides a complete list of wildlife species assessed by COSEWIC since its inception (Section 25 of SARA).

Yours sincerely,

Marco Festa-Bianchet
Chair of COSEWIC

ITEM I - COSEWIC ACTIVITIES

1. SPECIES ASSESSMENT MEETING - FALL

Date: November 24-28, 2003
Location: Ottawa, Ontario
Attendance
Members - 42 members/alternates
Secretariat Staff - 8
Observers - 13 (2 from WWF-Canada, 2 from Canadian Wildlife Federation, 2 students McGill University,1 from the Ontario Ministry of Natural Resources, 1 from Fisheries & Oceans Canada and 5 from the Canadian Wildlife Service).
Regrets - 2 members/alternates (Prince Edward Island and Saskatchewan)

At the first meeting of COSEWIC (Committee on the Status of Endangered Wildlife in Canada) since the passage of SARA (Species At Risk Act), the committee members reviewed the conservation status of 23 species.

2. SPECIES ASSESSMENT MEETING - SPRING

Date: May 3-7, 2004
Location: Bird Studies Canada, Port Rowan, Ontario
Attendance
Members - 41 members/alternates
Secretariat Staff – 7
Observers – 30 (1 from Ontario Ministry of Natural Resources, 1 from the Department of Natural Resources, New Brunswick, 1 from Fisheries & Oceans Canada, 1 from Parks Canada, 1 from the COSEWIC Molluscs Specialist Subcommittee, 2 from Canadian Wildlife Service, Ontario Region, 1 from the Canadian Wildlife Service Headquarters, 3 from World Wildlife Fund Canada, 12 from Bird Studies Canada, 5 from McGill University, 1 from Upper Thames River Conservation Authority, 1 from Norfolk Field Naturalists)

Regrets – 2 members/alternates (Canadian Museum of Nature and Saskatchewan)

Teleconference
Six Wildlife Management Boards participated in a teleconference with COSEWIC to discuss the draft proposal for working together that was developed from discussions at the meeting and workshop held in Whitehorse, Yukon Territory in April, 2003. The decisions arrived at during the teleconference have been incorporated into the COSEWIC Operations and Procedures Manual.

3. SUMMARY OF SPECIES ASSESSMENT MEETINGS (NOVEMBER & MAY)

During the last year, COSEWIC met twice (in November 2003 and in May 2004) to assess or reassess the status of 59 species, subspecies and populations. The species assessment results include the following:

Endangered: Horned Lark *strigata* subspecies, Northern Bobwhite, White Sturgeon, Sand Verbena Moth, Butternut, Dwarf Woolly-heads, Slender Collomia, Small-flowered Tonella, Beluga Whale (Eastern Hudson Bay population and Ungava Bay population), Peary Caribou, Red Crossbill *perca* subspecies, Prairie Skink, Spotted Turtle, Small-mouthed Salamander, Porbeagle Shark, Round Pigtoe, Bog Bird's-foot Trefoil, Dwarf Sandwort, Pink Sand-verbena, Rosy Owl-clover, Stoloniferous Pussytoes.
Threatened: Short-tailed Albatross, Dakota Skipper, Powesheik Skipperling, Branched Bartonia, Dwarf Hackberry, Porsild's Bryum, Beluga Whale (St. Lawrence Estuary population and Cumberland Sound population), Plains Bison, Loggerhead Shrike *excubitorides* subspecies, Pink-footed Shearwater, Western Rattlesnake, Gulf of St. Lawrence Aster, Victorin's Gentian, Flooded Jellyskin.
Special Concern: Harbour Porpoise, Rocky Mountain Ridged Mussel , Steller Sea Lion, Barren-ground Caribou (Dolphin and Union population), Beluga Whale (Western Hudson Bay population and Eastern High Arctic - Baffin Bay population), Grey Whale, Spotted Bat, Yellow Lampmussel, Eastern Lilaeopsis, New Jersey Rush, Victorin's Water-hemlock, Columbian Carpet Moss, Twisted Oak Moss.

As of May, 2004, the COSEWIC list of Canadian Species at Risk comprises 456 species in various categories, including 169 endangered species, 114 threatened speces and 140 species of special concern. In addition, 21 species are extirpated (no longer existing in the wild in Canada) and 12 are extinct.

Note: There are now twelve species from SARA's Schedule 2 left to be reassessed by June, 2006.

Appendix I (COSEWIC Press Releases from the two Assessment meetings)

- Draft of the Terms of Reference for the ATK Subcommittee - reviewed and approved (Note: Awaiting endorsement by National Aboriginal Organizations).
- Prioritization process for candidate lists of species - developed.
- Designatable units - final document approved by COSEWIC and now included in the Operations & Procedures Manual
- Application for Species Assessment and submission of unsolicited Species Status Reports – guidelines and template recommended
- Schedule 2 species reassessment deadlines – confirmation that these will be respected

- Identifying and reporting uncertainties in species status assessment – draft approach discussed and approved.

4. ANNUAL SPECIES SPECIALIST SUBCOMMITTEES MEETINGS

Amphibians & Reptiles Specialist Subcommittee
November 8, 2003
Holiday Inn, Guelph, Ontario
Members: 9 including 2 co-chairs
Secretariat: 1
Observers: 4 students
Summary of key discussion items: membership; technical summaries; draft atlas of British Columbia amphibians and reptiles; five species status evaluations and recommendations; candidate list species; suggestion for future symposium and workshop COSEWIC on species ranges and mapping ranges.

Arthropods Specialist Subcommittee (Lepidopterans)
July 28-29, 2003
Biological Sciences Building, University of Alberta
Edmonton, Alberta
Members: 9 including co-chair
Secretariat: 1
Observers: 2 (David Duncan, Canadian Wildlife Service, Prairie & Northern Region and Gregory Pohl, Natural Resources Canada)
Summary of key discussion items: The proposed split of the Lepidopterans and Molluscs Specialist Subcommittee and the formation and possible functioning of the Arthropods Specialist Subcommittee; Subcommittee members and conflict of interest; guidelines for determining designatable units and revised instructions for writers of status reports; updates on three species; priority list of species for commissioning status reports; interim status report on two species and status recommendations for these species; and the prioritization scheme for butterflies.

Birds Specialist Subcommittee
September 6-7, 2003
Naramata Centre, Naramata, British Columbia
Members: 6 including 2 co-chairs
Secretariat: 1
Observers: 0

Summary of key discussion items: Seven species status reports and editorial changes; Candidate list was reviewed; Upcoming changes in membership

Freshwater Fishes Specialist Subcommittee
September 13-14, 2003
Huntsman Marine Science Centre, St. Andrews, New Brunswick
Members: 8 including 2 co-chairs

Secretariat: 1
Observers: 0
Summary of key discussion items: review of report schedule, Operations & Procedures Manual update review; three species status evaluations with recommendations; candidate list; improving quality of status reports; possible species name change; membership; template for SSC reviews; ecoregions map and intellectual property issues re potential report writers.
Amphibians & Reptiles Specialist Subcommittee
Summary of Discussion Items:

Marine Fishes Specialist Subcommittee
September 13-14, 2003
Huntsman Marine Science Centre, St. Andrews, New Brunswick
Members: 9 including co-chairs
Secretariat: 1
Observers: 1 from Huntsman Marine Science Centre
Summary of key discussion items: Information to be included in reports and the convention to use, a hands-on workshop to examine statistical approaches applied to scientific survey data, specific examples based on winter skate and porbeagle of how the program RAMAS Redlis could be applied to marine fish species; a detailed update on designatable units in Pacific salmon; continued progress on our Pacific candidate list which resulted in dropping 29 species and adding 13; General Status exercise led by the Department of Fisheries & Oceans identified as helpful in this matter; Status was suggested for two species; discussion of reports on four deepwater species was deferred in favour of the hands-on workshop pending resolution of some statistical issues in these reports; progress on another species report was also discussed.

Marine Mammals Specialist Subcommittee
October 4-5, 2003
Navigator Inn, Iqaluit, Nunavut
Members: 7 including 2 co-chairs
COSEWIC Secretariat: 2
Observers: 7 (2 from Fisheries & Oceans Canada, Iqaluit; 3 from the Quikiqtaaluk Wildlife Board, Nunavut; 1 from the Nunavut Wildlife Management Board and 1 community member, Iqaluit)
Summary of key discussion items: The meeting began with a public session from 9:00-12:00. Presentations were made by Hal Whitehead and Andrew Trites on COSEWIC's mandates, the Species at Risk Act, the role of the SSC, the assessment process, status designations and emergency assessments. Presentations were also made by Joannie Ikkidluak and Abraham Kaunak about the Wildlife Board, and by Gloria Goulet on the use of Aboriginal Traditional Knowledge by COSEWIC. Translations greatly aided the question and answer periods.

Six species status reports were reviewed and discussed in detail. The status of three outstanding species reports was also reviewed.

Molluscs Specialist Subcommittee
October 17-18, 2003
Nova Scotia Museum of Natural History
Halifax, Nova Scotia
Members: 7 including 1 co-chair
Secretariat: 1
Observers: 7 (3 from the Nova Scotia Museum of Natural History
1 from Nova Scotia Natural Resources (member of COSEWIC), 1 Soil & Water Conservation Society of Metro Halifax, 1 New Brunswick Museum, 1 Co-chair of the Recovery Team (Atlantic Whitefish) and member of the Recovery Team (Blanding's Turtle)

Summary of key discussion items: The public forum part of the meeting was held in the morning of the 17th and was attended by seven observers. During the public forum, Dr. Buster Welch, who retired from the Subcommittee, was thanked for his valuable contribution to the Molluscs Group for several years and was presented with a plaque in recognition of his work. Presentations were given to the public by Gerry Mackie explaining the work of COSEWIC and by Janice Smith on the work of the National General Status Working Group and particularly her work as Coordinator for Freshwater Mussels. Standard quantitative and qualitative sampling methods for aquatic and terrestrial molluscs were discussed and a motion was passed to provide references to published methodologies to all report writers when reports are first commissioned. Dr. Eva Pip and Dr. Stuart Harris are currently writing up standard sampling methods for freshwater gastropods. Changes to the "Operations & Procedures Manual" and to the "Instructions for Report Writers" were discussed with reference to the needs of the mollusc Species Specialist Subcommittee.

During the closed session part of the meeting, the Mollusc SSC reviewed the prioritization and candidate lists. A list of potential report writers will be generated and given to the Secretariat so the writers may be notified when calls are posted on COSEWIC's web site. Six draft status reports were discussion and status recommendations were provided.

Plants & Lichens Specialist Subcommittee
October 18-19, 2003
Lord Elgin Hotel, Ottawa, Ontario
Members: 14 including 2 co-chairs
Secretariat : 2
Observers : 0
Summary of key discussion items: Candidate Lists; Mosses and Liverworts; Lichens; Macro Algae; Standardization of Names; Status Report Content; Fragmentation; Twenty-four Vascular Plant draft reports and eight moss reports were reviewed and recommendations given.

Terrestrial Mammals Specialist Subcommittee
November 21, 2003
Royal Ontario Museum
Toronto, Ontario
Members: 7 including 2 co-chairs
Secretariat: 1
Observers: 1 (Nunavut Wildlife Management Board via teleconference)
Summary of key discussion items: Membership on the Species Specialist Subcommittee; status recommendations for species to be assessed at the November 2003 and May 2004 COSEWIC meetings and progress on status reports in preparation.

ITEM II - ELECTION OF CHAIR OF COSEWIC

Following procedures set out in the Operations & Procedures Manual, a nominating committee was struck, chaired by Jeff Hutchings. Marco Festa-Bianchet's name was submitted for renewal as chair of COSEWIC. There were no other nominees and Marco was voted in as chair of COSEWIC for a further two-year term effective May 7, 2004.

ITEM III - COSEWIC MEMBERSHIP

Membership Changes

For Information:

See Appendix II for a list of current and proposed members.

For Approval:

a) *Members from jurisdictions (Provincial /Territorial/Federal) –*

At the Spring, 2004 meeting of COSEWIC, the chair reminded members from jurisdictions that CESCC members have to notify the Chair of COSEWIC by July 1, 2004 of the name of any new member or alternate to be submitted to the Minister of the Environment for appointment after consulting with the CESCC.

A curriculum vitae for each nominee will be on record with the COSEWIC Secretariat.

b) *Non-government members and Co-chairs of Species Specialist Subcommittees* - New /Renewed Members were selected as a result of a January 2004 public call for members. Justifications and biosketches are herein provided for the following nominees submitted for consideration and review by CESCC and subsequent appointment by the Minister of the Environment effective January 1, 2005:

Non-government Member – Dr. Jeff Hutchings

Co-chair, Amphibians & Reptiles Specialist Subcommittee – Dr. David Green
Co-chair, Arthropods Specialist Subcommittee – Dr. Paul Catling
Co-chair, Arthropods Specialist Subcommittee – Dr. Theresa Fowler*
Co-chair, Birds Specialist Subcommittee – Richard (Dick) Cannings
Co-chair, Marine Mammals Specialist Subcommittee – Dr. Randall Reeves
Co-chair, Molluscs Specialist Subcommittee – Janice Smith

* - All memberships are for a four year term with the exception of Dr. Theresa Fowler who was recommended for renewal for two years so that in future, both co-chairs' positions are not vacated at the same time.

See Appendix III (Biosketches).

ITEM IV - COSEWIC OPERATIONS AND PROCEDURES

Suggested Term Limits for Co-chairs
Co-chairs (and non-government members) that have completed two consecutive terms beginning with their ministerial appointments are encouraged to consider not applying for a third term. When a co-chair (or a non-government member) has completed three consecutive terms, the Chair of COSEWIC will advise the selection committee to particularly consider other qualified candidates that may apply for that position.

Decision making procedure during meetings
Species assessments when consensus is not easily and quickly reached will no longer be automatically deferred to a second round of deliberations. Individual discussions will carry on until the assessment has been completed.

Voting
When consensus is not reached, all votes will now be conducted electronically, such that each member's ballot is secret. Previously, voting was by show of

hands except when a secret vote was requested and agreed to.

Instructions for the Preparation of COSEWIC Status Reports
Extensive revisions to this document continued into February 2004, after which the document was posted on the COSEWIC website together with COSEWIC's Call for Bids to prepare COSEWIC status reports.

Involvement of Wildlife Management Boards
Wildlife Management Boards will be invited as observers to Species Specialist Subcommittee meetings.
Relevant Wildlife Management Boards will be invited to participate as non-voting members during emergency assessment determinations.
Wildlife Management Boards will be invited to participate in the teleconference with The Canadian Wildlife Directors Committee following each Species Assessment Meeting.

Summary – Documents Recommended for Approval

Appendix IV – Terms of Reference: COSEWIC Aboriginal Traditional Knowledge Subcommittee
Appendix V – Assessment Process, Categories and Guidelines
Appendix VI – Applications for Species Assessment and Unsolicited Species Status Reports

ITEM V – SPECIES STATUS ASSIGNMENTS

List of Species assessed since the last reporting indicating status assigned, reasons (including uncertainties where applicable and COSEWIC Criteria (with alphanumeric codes.

See Appendix VII

List of status reports available on the Public Registry - www.sararegistry.gc.ca in English and French.

ITEM VI - COMPLETE LIST OF WILDIFE SPECIES ASSESSED BY COSEWIC SINCE ITS INCEPTION

Herein provided is the May 2004 COSEWIC List of Canadian Species at Risk. This publication is available on the Public Registry.

See Appendix VIII (enclosed)

APPENDIX I
PRESS RELEASES

COMMITTEE ON THE
STATUS OF ENDANGERED
WILDLIFE IN CANADA

COMITÉ SUR LA SITUATION
DES ESPÈCES EN PÉRIL
AU CANADA

Ottawa, November 28, 2003

At the first meeting of COSEWIC (Committee on the Status of Endangered Wildlife in Canada) since the passage of SARA (Species At Risk Act), the committee members reviewed the conservation status of 23 species.

The Steller Sea Lion was designated as a species of Special Concern because of the small number of breeding sites, as well as its susceptibility to human disturbance and oil spills. This species occurs on islands off the coast of British Columbia. In the past, Steller Sea Lion populations were reduced by intensive culls intended to reduce predation on fish. These programmes were discontinued in the 1950s, and populations now show some increase. One breeding group in British Columbia was driven to extinction and overall populations remain below historic levels (early 1900s). Steller Sea Lions are threatened or endangered elsewhere in their range (United States and Russia).

The White Sturgeon, the largest freshwater fish in Canada, was designated as Endangered. In Canada, this species only occurs in British Columbia where several populations are in decline. The great scarcity of fish younger than 30-40 years in most rivers suggests that few young are surviving. Long life span and small populations make White Sturgeon extremely vulnerable to any harvest and habitat degradation such as caused by dams. An additional threat to this species is the black market demand for their meat and roe (caviar).

On the Prairies, two species of butterflies (the Dakota Skipper and the Poweshiek Skipperling) were designated as Threatened. Both species depend on remnant prairie habitats and are threatened by prescribed burns, fragmentation of their grassland habitats and the timing of haying.

Butternut, a relatively short-lived tree occurring in Ontario, Quebec, and New Brunswick, was designated as Endangered. Butternut produces edible nuts and

is of special importance to many Aboriginal Peoples. The tree is widespread and infrequent but is widely impacted by an exotic disease (the Butternut Canker) that is spreading rapidly.

"In this meeting, we examined four status reports on species for which COSEWIC concluded that the information was not sufficient to assign status. More resources must be invested in the study of Canada's flora and fauna to provide decision makers and planners with adequate information for effective conservation" said Dr. Marco Festa-Bianchet, Chair of COSEWIC.

Limitations imposed by a lack of information have important repercussions for assessment. For example, in Nova Scotia and New Brunswick, the rare Squat Duskysnail is known from a small number of scattered localities and was considered to be Data Deficient. Little is known about how widespread it is or the numbers of these snails in Canadian streams and lakes.

In coastal British Columbia, Keen's Long-eared Bat has a wide range but may depend on old growth forest. The bat is rarely recorded and difficult to sample. Lack of information about its population size and the difficulty of identifying this species led to its designation as Data Deficient.

There are now 441 species in various COSEWIC risk categories, including 160 Endangered, 108 Threatened, and 140 of Special Concern. In addition, 21 species are Extirpated (no longer found in the wild in Canada), 12 are Extinct, and 32 are Data Deficient.

COSEWIC's assessments will be forwarded to the federal Minister of the Environment and will form the basis for inclusion in the legal list of species at risk under the Species at Risk Act.

COSEWIC assesses the national status of wild species, subspecies, varieties, or other designatable units that are considered to be at risk in Canada. COSEWIC comprises members from each provincial and territorial government wildlife agency, four federal entities (Canadian Wildlife Service, Parks Canada Agency, Department of Fisheries and Oceans, and the Federal Biosystematics Partnership, chaired by the Canadian Museum of Nature), three non-jurisdictional members and the co-chairs of the species specialist and the Aboriginal Traditional Knowledge subcommittees.

Definition of COSEWIC terms and risk categories

Species: Any indigenous species, subspecies, variety, or geographically or genetically distinct population of wild fauna and flora.

Extinct: A species that no longer exists.
Extirpated: A species no longer existing in the wild in Canada, but occurring elsewhere.

Endangered: A species facing imminent extirpation or extinction.
Threatened: A species likely to become endangered if limiting factors are not reversed.
Special Concern: A species of special concern because of characteristics that make it particularly sensitive to human activities or natural events.
Not at Risk: A species that has been evaluated and found not to be at risk.
Data Deficient: A species for which there is insufficient scientific information to support status designation.

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For further information, contact:

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Chair, COSEWIC

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For inquiries on the White Sturgeon:

Dr. Robert Campbell
Co-chair, Freshwater Fishes Specialist Subcommittee
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For inquires on the butterflies:

Dr. Theresa Fowler
Co-chair, Arthropods Specialist Subcommittee
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For inquiries on the Butternut:

Dr. Erich Haber
Co-chair, Plants and Lichens Specialist Subcommittee
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erich.haber@rogers.com

For inquiries on the Squat Duskysnail:

Dr. Gerald Mackie
Co-chair, Molluscs Specialist Subcommittee
(519) 824-4120 ext. 3505
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For inquiries on the Keen's Long-eared Bat:

Dr. Brock Fenton
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Further details on the species assessed, and the reasons behind each designation, can be found on the COSEWIC website at:

www.cosewic.gc.ca

COMMITTEE ON THE
STATUS OF ENDANGERED
WILDLIFE IN CANADA

COMITÉ SUR LA SITUATION
DES ESPÈCES EN PÉRIL
AU CANADA

Port Rowan, Ontario, May 7, 2004

In the heart of Canada's biologically diverse Carolinian zone, home to over a hundred species at risk, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) met to assess the conservation status of 36 wildlife species.

One of the Carolinian species considered was the Round Pigtoe. This freshwater mussel that is now found only in Lake St.Clair, and three other Southwestern Ontario watersheds, is endangered by the exotic invasive Zebra Mussel, and by deteriorating water quality. There are now eight mussel species considered Endangered in Southern Ontario.

Two northern mammals, the Beluga Whale and the Peary Caribou, were among the better known species reviewed. Of seven populations of Beluga Whales, only that in the Beaufort Sea is now considered not to be at risk of extinction. Historical overhunting and, for some populations, current unsustainable harvesting, are believed to be the most significant threats. Other threats include contamination and habitat degradation. The endangered Peary Caribou continues to decline possibly due to changes in the Arctic climate. This decline has continued despite voluntary restrictions on hunting by northern residents.

The first shark ever to be assessed by COSEWIC, the Porbeagle, was designated as Endangered. The Porbeagle has declined by an estimated 90% since the 1960's, and the main threat appears to come from overfishing. Although quotas have been reduced and breeding areas closed to fishing under the current management plan, the Porbeagle's life history characteristics, including late maturity and low birth rate, render this species particularly vulnerable to over-exploitation.

Several plant species found only in Canada are also deemed to be at risk, including the Gulf of St.Lawrence Aster and Victorin's Gentian, both assessed as Threatened. COSEWIC noted that all-terrain vehicles (ATVs) pose a threat to

seven of the twelve plant species they considered at this meeting. ATVs can cause soil erosion and directly destroy plants.
COSEWIC assessed the status of the Plains Bison, an animal that was once a major component of Canada's prairie ecosystem where it numbered in the millions. Fewer than one thousand free-ranging Plains Bison occur in Canada today. "Let's learn from this tragedy, and redouble our efforts to protect species at risk and their habitats" said Marco Festa-Bianchet, chair of COSEWIC.

Other species assessed included the Prairie Skink, Spotted Turtle, Stoloniferous Pussytoes, Pink-footed Shearwater, Western Rattlesnake, Grey Whale and Spotted Bat.

There are now 456 species in various COSEWIC risk categories, including 169 Endangered, 114 Threatened, and 140 of Special Concern. In addition, 21 species are Extirpated (no longer found in the wild in Canada), 12 are Extinct, and 33 are Data Deficient.

COSEWIC's assessments will be forwarded to the federal Minister of the Environment and will form the basis for inclusion in the legal list of species at risk under the Species at Risk Act.

COSEWIC assesses the national status of wild species, subspecies, varieties, or other designatable units that are considered to be at risk in Canada. COSEWIC comprises members from each provincial and territorial government wildlife agency, four federal entities (Canadian Wildlife Service, Parks Canada Agency, Department of Fisheries and Oceans, and the Federal Biosystematics Partnership, chaired by the Canadian Museum of Nature), three non-jurisdictional members and the co-chairs of the species specialist and the Aboriginal Traditional Knowledge subcommittees.

COSEWIC is very grateful to Bird Studies Canada for providing facilities and logistical support for this meeting.

Definition of COSEWIC terms and risk categories

Species: Any indigenous species, subspecies, variety, or geographically or genetically distinct population of wild fauna and flora.

Extinct: A species that no longer exists.
Extirpated: A species no longer existing in the wild in Canada, but occurring elsewhere.
Endangered: A species facing imminent extirpation or extinction.
Threatened: A species likely to become endangered if limiting factors are not reversed.
Special Concern: A species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

Not at Risk: A species that has been evaluated and found not to be at risk.
Data Deficient: A species for which there is insufficient scientific information to support status designation.

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For further information, contact:

For general inquiries and for inquiries on Peary Caribou:

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For inquiries on the Porbeagle Shark:

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For inquiries on the Round Pigtoe:

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For inquiries on the Gulf of St.Lawrence Aster and Victorin's Gentian:

Dr. Erich Haber
Co-chair, Plants and Lichens Specialist Subcommittee
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Further details on all species assessed, and the reasons behind each designation, can be found on the COSEWIC website at:

www.cosewic.gc.ca

APPENDIX II

Table 1/Tableau 1:

Appointment of COSEWIC members and alternates from provinces, territories and federal agencies. The duration of the term for all members appearing in this table is 4 years, starting on the date of the proclamation of the *Species at Risk Act*, June 5th, 2003 until June 5th, 2007.
(* Names of new members provided to COSEWIC in 2004 are indicated in bold.)

Jurisdiction	Member	Alternate
Alberta	Gordon Court Provincial Wildlife Status Biologist Resource Data and Species at Risk Fish and Wildlife Division Dept. of Sustainable Resource Development Government of Alberta 7th Floor, O.S. Longman Building 6909 - 116 Street Edmonton AB T6H 4P2	Steve Brechtel Head Resource Data and Species at Risk Fish and Wildlife Division Dept. of Sustainable Resource Development Government of Alberta 7th Floor, O.S. Longman Building 6909 - 116 Street Edmonton AB T6H 4P2
British Columbia	Dave Fraser Endangered Species Specialist Biodiversity Branch Terrestrial Ecosystem Science Section Ministry of Water, Land and Air Protection Government of British Columbia P.O. Box 9338 - Station Prov Govt Victoria BC V8V 9M1	Juanita Ptolemy Species Specialist Biodiversity Branch Aquatic Ecosystem Science Section B.C. Ministry of Water, Land and Air Protection Government of British Columbia P.O. Box 9338 - Station Prov Govt Victoria BC V8W 9M1
Manitoba	Dr. James Duncan Manager Biodiversity Conservation Section Wildlife and Ecosystem Protection Branch Manitoba Conservation P.O. Box 24 200 Saulteaux Crescent Winnipeg MB R3J 3W3	**Martin Erickson*** **Fisheries Biologist** **Aquatic Ecosystem Section** **Fisheries Branch** **Manitoba Water Stewardship** **Box 20, 200 Saulteaux Crescent** **Winnipeg, MB R3J 3W3**
New Brunswick	Dr. Maureen Toner Biologist Species at Risk Program Fish and Wildlife Branch Department of Natural Resources P.O. Box 6000 Fredericton NB E3B 5H1	Dwayne L. Sabine Biologist Species at Risk Program Fish and Wildlife Branch Department of Natural Resources P.O. Box 6000 Fredericton, NB E3B 5H1

Jurisdiction	Member	Alternate
Newfoundland and Labrador (For all Species other than Marine Fish)	Joseph Brazil Chief Endangered Species and Biodiversity Section Inland Fish and Wildlife Division Department of Tourism, Culture and Recreation Government of Newfoundland and Labrador P.O. Box 2007 50 Main Street, Commerce Court Corner Brook NL A2H 7S1	Nathalie Djan-Chékar Curator of Botany Natural History Unit Provincial Museum of Newfoundland & Labrador P.O. Box 8700 St. John's NL A1B 4J6
Newfoundland and Labrador (Marine Pelagic and Demersal Fish Species)	Tom Dooley Director of Resource Policy and Development Policy and Planning Department of Fisheries and Aquaculture Government of Newfoundland and Labrador P.O. Box 8700 St. John's NL A1B 4J6	David Coffin Supervisor Fisheries Resource Planning and Development Policy and Planning Department of Fisheries and Aquaculture Government of Newfoundland and Labrador P.O. Box 8700 St. John's NL A1B 4J6
Northwest Territories	Dr. Suzanne Carrière Ecosystem Management Biologist Wildlife and Fisheries Division Department of Resources, Wildlife and Economic Development Government of the Northwest Territories 600 - 5102 50th Avenue Scotia Centre, 5th Floor Yellowknife NT X1A 3S8	**Tom Lakusta*** **Manager, Forest Resources** **Forest Management** **Department of Resources, Wildlife and Economic Development** **Government of the Northwest Territories** **PO Box 1320** **Yellowknife NT X1A 2L9**
Nova Scotia	Dr. J. Sherman Boates Manager Wildlife Division Department of Natural Resources Government of Nova Scotia 136 Exhibition Street Kentville NS B4N 4E5	Mark F. Elderkin Wildlife Division Nova Scotia Dept. of Natural Resources Government of Nova Scotia 136 Exhibition Street Kentville NS B4N 4E5
Nunavut Territory	Michael Setterington Ecosystems Biologist Department of Environment Government of Nunavut PO Box 120 Arviat NU X0C 0E0	Vacant

Jurisdiction	Member	Alternate
Ontario	Alan Dextrase Aquatic SAR Biologist Species At Risk section Ontario Parks Ontario Ministry of Natural Resources P.O. Box 7000 Peterborough ON K9J 8M5	**Michael Oldham*** **Botanist/Herpetologist** **Ontario Natural Heritage Information Centre (NHIC)** **Ontario Ministry of Natural Resources** **P.O. Box 7000** **Peterborough ON K9J 8M5**
Prince Edward Island	Rosemary Curley Program Manager Protected Areas and Biodiversity Conservation Conservation and Management Division PEI Dept. Fisheries, Aquaculture and Environment 11 Kent St. P.O. Box 2000, Jones Bldg, Charlottetown PE C1A 7N8	Barry MacPhee Manager of Marine Fisheries PEI Department of Fisheries, Aquaculture and Environment 11 Kent St. P.O. Box 2000, Jones Bldg, Charlottetown PE C1A 7N8
Quebec (Plants)	Line Couillard Ministère de l'Environnement Direction du patrimoine écologique et du développement durable Édifice Marie-Guyart, 4e étage 675, boul. René-Lévesque Est Québec QC G1R 5V7	Vacant
Quebec (Fauna)	**Daniel Banville*** **Société de la faune et des parcs du Québec** **Direction du développement de la faune** **Édifice Marie-Guyart** **675 boulevard René Levesque est** **boîte 92, 11e étage** **Québec QC G1R 5V7**	**Jacques Jutras*** **Société de la faune et des parcs du Québec** **Direction du développement de la faune** **Édifice Marie-Guyart** **675 boulevard René Levesque est** **boîte 92, 11e étage** **Québec QC G1R 5V7**
Saskatchewan	Jeanette Pepper Zoologist Saskatchewan Conservation Data Centre Resource Stewardship Branch Saskatchewan Environment Government of Saskatchewan 3211 Albert Street - Room 436 Regina SK S4S 5W6	Dr. Robert Wright Plant ecologist Forest Services Group Saskatchewan Environment Government of Saskatchewan 3211 Albert Street Regina SK S4S 5W6

Jurisdiction	Member	Alternate
Yukon Territory	Thomas Jung Senior Biologist Department of Environment Fish and Wildlife Branch Government of Yukon P.O. Box 2703 Whitehorse YT Y1A 2C6	**Syd Cannings*** **NatureServe Yukon** **Yukon Department of the Environment** **Box 2703** **Whitehorse YT Y1A 2C6**
Federal Biodiversity Information Partnership (Canadian Museum of Nature)	Dr. Robert Anderson Entomology Research Scientist Canadian Museum of Nature P.O. Box 3443 - Station D Ottawa ON K1P 6P4	Dr. Lynn Gillespie Research Scientist Canadian Museum of Nature P.O. Box 3443 - Station D Ottawa ON K1P 6P4
Environment Canada (Canadian Wildlife Service)	Dr. B. Theresa Fowler Science Advisor / Species Assessment Biologist Species at Risk Branch Canadian Wildlife Service Environment Canada Ottawa ON K1A 0H3	Diane Amirault Senior Species at Risk Biologist Canadian Wildlife Service Environment Canada P.O. Box 6227 Sackville NB E4L 1G6
Department of Fisheries and Oceans	Dr. Jake Rice Director Canadian Science Advisory Secretariat Department of Fisheries and Oceans 200 Kent Street - Station 12S032 Ottawa ON K1A 0E6	**Lara Cooper*** **Canadian Science Advisory Secretariat** **Fisheries and Oceans Canada** **200 Kent Street Station 12S032** **Ottawa ON K1A 0E6**
Parks Canada	Dr. Gilles Seutin Coordinator Species at Risk Program Parks Canada 25 Eddy Street, 4th Floor Gatineau QC K1A 0M5	Dr. Peter L. Achuff National Botanist Ecological Integrity Branch Parks Canada Waterton Lakes National Park Waterton Park AB T0K 2M0

Table 2/ Tableau 2: Co-chairs of the Aboriginal Traditional Knowledge Subcommittee and Species Specialist Subcommittees, with dates of appointment and the ending date of their terms of office.

***New/renewed Co-chairs on COSEWIC as of January 2005**

SUBCOMMITEE	NAME	DATE APPOINTED	TERM ENDING
Aboriginal Traditional Knowledge	Henry Lickers Mohawk Council of Akwesasne Department of the Environment P.O. Box 579 Cornwall ON K6H 5T3	05/062003	31/12/2006

SUBCOMMITEE	NAME	DATE APPOINTED	TERM ENDING
	Larry Carpenter Wildlife Management Advisory Council - Northwest Territories P.O. Box 2120 Inuvik NT X0E 0T0	05/06/2003	31/12/2007
Amphibians and Reptiles	Dr. Ronald J. Brooks Department of Zoology College of Biological Science University of Guelph Guelph ON N1G 2W1	05/06/2003	31/12/2006
	Dr. David M. Green* **Redpath Museum** **McGill University** **859 Sherbrooke Street West** **Montréal QC H3A 2K6**	05/06/2003	31/12/2008
Birds	**Richard Cannings*** **1330 East Debeck Road** **R.R. 1, Site 11 - Comp. 96** **Naramata BC V0H 1N0**	05/06/2003	31/12/2008
	Dr. Marty L. Leonard Department of Biology Dalhousie University 1355 Oxford Street Halifax NS B3H 4J1	05/06/2003	31/12/2006
Freshwater Fishes	Dr. Robert Campbell 983 Route 800 E R.R. #1 St. Albert ON K0A 3C0	05-06/2003	31/12/2005
	Dr. Claude Renaud Adjunct Professor, University of Ottawa Research Scientist – Icthyology Canadian Museum of Nature P.O. Box 3443 – Station D Ottawa ON K1P 6P4	05/06/2003	31/12/2007
Arthropods	**Dr. B. Theresa Fowler*** **Science Advisor / Species Assessment Biologist** **Species at Risk Branch** **Canadian Wildlife Service** **Environment Canada** **Ottawa ON K1A 0H3**	05/06/2003	31/12/2006

SUBCOMMITEE	NAME	DATE APPOINTED	TERM ENDING
	Dr Paul M. Catling* Research Scientist and Curator Biodiversity, National Program on Environmental Health Agriculture and Agri-food Canada, Research Branch Wm. Saunders Bldg., Central Experimental Farm Ottawa, ON K1A 0C6	01/01/2005	31/12/2008
Molluscs	Dr. Gerald L. Mackie Department of Zoology College of Biological Science University of Guelph Guelph ON N1G 2W1	05/06/2003	31/12/2006
	Janice L. Smith* Aquatic Ecosystem Impacts Research Branch National Water Research Institute Environment Canada Burlington ON L7R 4A6	01/01/2005	31/12/2008
Marine Fishes (Atlantic Ocean and Eastern Arctic)	Dr. Richard L. Haedrich Research Professor Department of Biology Memorial University of Newfoundland 4 Clark Place St. John's NL A1B 5S7	05/06/2003	31/12/2007
Marine Fishes (Pacific Ocean and Western Arctic)	Dr. Mart R. Gross Professor Department of Zoology University of Toronto 25 Harbord Street Toronto ON M5S 3G5	05/06/2003	31/12/2005
Marine Mammals	Dr. Andrew Trites Director Marine Mammal Research Unit Fisheries Centre University of British Columbia 2204 Main Mall Vancouver BC V6T 1Z4	05/06/2003	31/12/2007
	Dr. Hal Whitehead Department of Biology Dalhousie University Halifax NS B3H 4J1	05/06/2003	31/12/2004
	Dr. Randall R. Reeves * Okapi Wildlife Associates Hudson QC J0P 1H0	01/01/2005	31/12/2008

SUBCOMMITEE	NAME	DATE APPOINTED	TERM ENDING
Plants and Lichens (Vascular Plants)	Dr. Erich Haber c/o National Botanical Services 604 Wavell Avenue Ottawa ON K2A 3A8	05/06/2003	31/12/2005
Plants and Lichens (Mosses and Lichens)	Dr. René Belland Devonian Botanic Garden University of Alberta Edmonton AB T6G 2E1	05/06/2003	31/12/2007
Terrestrial Mammals	Dr. Marco Festa-Bianchet Department of Biology Sherbrooke University Sherbrooke, QC J1K 2R1	05/06/2003	31/12/2007
	Dr. M. Brock Fenton Department of Biology University of Western Ontario London ON N6A 5B7	05/06/2003	31/12/2005

Table 3/ Tableau 3: Three (3) Non-government COSEWIC members with dates of appointment and the ending date of their terms of office.

***New/renewed Non-government members on COSEWIC as of January 2005**

NAME	DATE APPOINTED	TERM ENDING
Michael Bradstreet Ontario Region Director Nature Conservancy of Canada RR 5, 5420 Highway 6 North Guelph ON N1H 6J2	05/06/2003	31/12/2007
Dr. Steven M. Carr Department of Biology Memorial University of Newfoundland Elizabeth Avenue St. John's NL A1B 3X9	05/06/2003	31/12/2006
Dr. Jeffrey Hutchings * **Department of Biology** **Dalhousie University** **1355 Oxford Street** **Edsell Castle Circle** **Halifax NS B3H 4J1**	05/06/2003	31/12/2008

APPENDIX III

BIOSKETCHES

Non-government Member

1. Recommendation – Dr. Jeffrey Hutchings (renewal)

Dr. Hutchings received a Ph. D. from Memorial University in 1991 and conducted postdoctoral research at the University of Edinburgh and at the Department of Fisheries and Oceans in St. John's. He became a faculty member at Dalhousie University in 1995 and is currently a full Professor. Dr. Hutchings has compiled an impressive record of research focussing on the conservation of marine fishes and the ecology of gadid and salmonid fishes. Dr. Hutchings has published over 80 publications in the peer-reviewed literature including sentinel publications on exploited marine species, and is well known for communicating this science to Canadian Society. Dr. Hutchings also authored the 2003 COSEWIC status report on Atlantic Cod.

Dr. Hutchings has considerable knowledge and experience with respect to the biology and management of Canadian marine, anadromous and freshwater fishes. He is most knowledgeable regarding Atlantic Canadian marine and freshwater environments and freshwater environments in Ontario. Dr. Hutchings has been a member of the COSEWIC Marine Fishes SSC since 1997 and has been a Non-government Member of COSEWIC since 2001. This has given him a strong foundation in species assessment and in formulating recommendations with respect to biological status. Dr. Hutchings has also published several peer-reviewed papers addressing the application of the IUCN criteria which have been adopted by COSEWIC.

Dr. Hutchings has broad experience as an editor for scientific journals and also has a proven record of working well collaboratively as a member of various panels and advisory committees in addition to his work on COSEWIC. He has successfully supervised eight graduate students and is currently supervising seven graduate students at the Ph. D. and M. Sc. level.

Co-chair
Amphibians & Reptiles Specialist Subcommittee

2. Recommendation – Dr. David M. Green (renewal)

Dr. David M. Green received his Ph.D. in Zoology from the University of Guelph in 1982. He is an Associate Professor at McGill University and Curator of Terrestrial Vertebrates at the Redpath Museum with over 90 peer-reviewed publications on amphibians. He has supervised or is currently supervising 13 graduate students doing projects on amphibians and reptiles (5 M.Sc., 3 Ph.D. graduated; 3 M.Sc., 2 Ph.D. ongoing). He is past Chair of COSEWIC (1998-

2002), a Co-chair of the Amphibians and Reptiles Subcommittee since 1995 and a member of the Amphibians and Reptiles Subcommittee since 1985.

Co-chair Arthropods Specialist Subcommittee 3. Recommendation – Dr. B. Theresa Fowler (renewal)

Dr. B. Theresa Fowler:
Current Position, Degrees and Biological Science Background
since 1995, Scientific Authority, Endangered Species, Species at Risk Branch, Canadian Wildlife Service
PhD, Ottawa, on behavioural ecology of Tamias striatus
3 years experience, behavioural ecology of marsh birds (Rallus limicola, Porzana carolina,
Exobrychus exilis)
5 years experience arctic ecosystems (Lagopus mutus, Lepus arcticus)
56 papers and publications including government documents and presentations to legislators, popular conservation and nature literature, 2 journal articles and 2 book chapters

Other relevant experience (conservation biology, taxonomy, ecology, genetics, population biology etc)
8 years as Director of Canadian Nature Federation
broad interest in all taxa

Geographic Areas/Taxa
small mammals and birds, Quebec, Ontario and High Arctic
broad knowledge of flora and fauna of North America

Determining Biological Status of Species
17 years as a member of COSEWIC
initiated and assembelled the molluscs and Lepidoptera Subcommittee for COSEWIC
since 2003, Co-Chair Arthropoda Species Specialist Group

Knowledge of Concepts and Techniques Related to Assessment and Conservation of Species at Risk
works daily with issues regarding Species at Risk

Editorial Roles, Manuscripts, Journals
periodic role as reviewer for journal articles
review of 4 natural history book manuscripts and 11 post publication book reviews
accomplished reviewer and editor of COSEWIC status reports for Lepidoptera and Mollusca
edits many documents in daily work
Other

knows English, French, and Polish with experience as a translator of scientific texts

Co-chair
Arthropods Specialist Subcommittee

4. Recommendation – Dr. Paul M. Catling (new)

Dr. Paul M. Catling:
Current Position, Degrees and Biological Science Background
since 1991, classified as Research Scientist, Level 3, Biological Resources Division of Agriculture Canada, 24 years experience with the Biosystematics Research Center/Biological Resources as a plant systematist, ecologist and curator of plant collections;
PhD, Toronto, on systematics and ecology of plants
14 years on the faculty of University of Ottawa
about 50 publications on odonates and lepidoptera , including books, book chapters, refereed journal articles and government documents, and over 300 botany publications

Other relevant experience (conservation biology, taxonomy, ecology, genetics, population biology etc)
7 years experience gathering data on the distribution of dragonflies in Canada including extensive Ontario work and some in NWT
serves on many advisory committees (Canadian Expert Committee on Plant Genetic Resources, Species Survival Commission, Nature Conservancy)

Geographic Areas/ Taxa
odonates of Canada, most provinces, especially Ontario and NWT
lepidoptera of Ontario
expert knowledge of flora of Canada
publications in ornithology (10), mycology(1), herpetology(6)

Determining Biological Status of Species
prepared status reports on some Ontario lepidoptera and a COSEWIC status report on the goldenseal
participated in status ranking of plants and insects in Ontario and odonates in NWT

Knowledge of Concepts and Techniques Related to Assessment and Conservation of SAR
has wide experience in studying rare flora and fauna and rare habitats such as alvars and grasslands; has identified streams where rare odonates are found for possible protection measures
involved in 4 recovery teams including the team for the butterfly, bog elfin and the goldenseal; prepared monitoring plans, and publicizes recovery team approaches

Editorial Roles, Manuscripts, Journals,

assesses over 100 manuscripts, grant applications and theses per annum
associate editor of Canadian Field Naturalist, and the journal "Biodiversity"
currently editing conference proceedings

Co-chair Birds Specialist Subcommittee 5. Recommendation - Richard Cannings (renewal)

Richard Cannings:

- M.Sc. (1977) from Memorial University of Newfoundland -- breeding ecology of Horned Larks
- B.Sc. (1975) from the University of B.C. -- homing behaviour in deer mice and Townsend's voles
- Extensive (provincial, national and international) education and work experience (25 years) covering many aspects of conservation biology, systematics, population biology and genetics, and wildlife management
- Curator of the Cowan Vertebrate Museum in the Department of Zoology, University of British Columbia (1980 to 1995) -- considerable experience in systematics and taxonomy of all terrestrial vertebrate groups—birds, mammals, reptiles and amphibians
- Consulting biologist in conservation biology, particularly regarding the flora and fauna of British Columbia
- Completed (1996) a comprehensive treatment of all BC avian taxa called Birds of British Columbia: A Taxonomic Catalogue
- Chair and report author of the South Okanagan Ecosystem Recovery Team (Habitat Atlas for Wildlife at Risk—South Okanagan & Lower Similkamee) –included habitat assessments, habitat mapping and GIS work, reintroduction of extirpated species, estimating minimum viable populations and minimum habitat requirements, working with local community groups and First Nations and implementing outreach and stewardship programs
- Current research interests include the breeding biology of small owls, but I have a broad expertise in owl biology and have published a review of owl biology in the Handbook of Birds of the World (volume 5)
- Good knowledge of the odonate (dragonfly) fauna of western Canada, and to a lesser extent, other insect groups (butterflies, true bugs)
- Familiar with the flora of British Columbia, the Yukon and Newfoundland
- Author of 8 COSEWIC status reports (including three updates) on five bird species and one amphibian
- Author of reports on the provincial status of eight bird species in British Columbia., as well as Identified Wildlife reports (status and

management recommendations) for three birds, seven butterflies and two dragonflies in British Columbia
- Co-chair of the Birds Species Specialist Committee of COSEWIC (2001 to present). Member of RENEW recovery teams for White-headed Woodpecker, Sage Thrasher, Yellow-breasted Chat and Western Screech-Owl
- Regular reviewer of articles and books for scientific journals, including the Auk, Condor and the Journal of Raptor Research

Co-chair
Marine Mammals Specialist Subcommittee

6. Recommendation – Dr. Randall R. Reeves (new)

Dr. Randall R. Reeves:
- B.A. - University of Nebraska, Lincoln, Nebraska, USA
- M.P.A. - Princeton University, Princeton, New Jersey, USA
- Ph.D. - McGill University, Montreal

- Dr. Reeves has been a self-employed researcher and writer since 1976, during which time he has compiled an impressive record of quality scientific work and of leadership in the conservation of marine mammals. Dr. Reeves has served on a number of national and international committees, most notably the Cetacean Specialist Group of the World Conservation Union or IUCN (of which he has been chair since 1997), as well as the various incarnations of the COSEWIC subcommittee devoted to marine mammals (1990 to present). He is the author or co-author of over 200 scientific or popular articles on marine mammals and is co-author or co-editor of several books and special issues of scientific journals. His writings include both technical and general treatment of the ecology of marine mammals, reviews of human impact on marine mammal populations (e.g. historic catches, live- capture and trade, offshore drilling), technical guides, workshop summaries, species status reports and conservation/management plans and guidelines. Dr. Reeves has conducted fieldwork at sites that span continents, including the Eastern Canadian Arctic and the North Atlantic, and is therefore well placed to address the status of Atlantic or Arctic species, as specified in our call for applicants. In short, Dr. Reeves has an impressive track record across the range of targeted skills, from strong science, to collaboration, to production of quality reports, and would therefore be an excellent choice as Co-Chair of the Marine Mammal Species Specialist Subcommittee.

Co-chair
Molluscs Specialist Subcommittee

7. Recommendation – Janice L. Smith (new)

Janice L. Smith:

- Research Biologist, Cumulative Impacts on Aquatic Biodiversity Project, Aquatic Ecosystem Impacts Research Branch, National Water Research Institute, Environment Canada, Burlington, Ontario
- B.Sc. (First Class Honours) in Zoology, University of Manitoba, 1973.
- M.Sc. equivalency, University of Waterloo, 1990

- She is an excellent researcher with wide publishing and editing experience, is a known team player in the conservation area (recovery teams, Mollusc and Lepidoptera SSC for many years, co-led part of the General Status assessment of mollusks), and is a recognized authority on an important group of Canadian critters (Ontario mollusks). She has been instrumental in bringing the conservation problems of this otherwise rather obscure group into the mainstream and in getting them recognized as an indicator species for freshwater conservation problems generally.

NOTE: Curricula vitae for all nominees and current members are on file with the COSEWIC Secretariat.

APPENDIX IV

Terms of Reference

COSEWIC Aboriginal Traditional Knowledge Subcommittee
(draft)

COSEWIC uses the best available scientific, Aboriginal traditional and community knowledge to assess species at risk. The *Species at Risk Act* (Section 18(1)) requires that COSEWIC establish an Aboriginal Traditional Knowledge subcommittee.

Purpose

The Aboriginal Traditional Knowledge Subcommittee (the ATK Subcommittee) facilitates access to the best available Aboriginal traditional knowledge and the incorporation of that knowledge into the COSEWIC species status assessment and classification processes.

Guiding Principles

The ATK Subcommittee is guided in carrying out its functions by the following principles. Subject to the terms of self-government and land claims agreements, Aboriginal communities are presumed to be the primary bodies to facilitate access to Aboriginal traditional knowledge in the assessment and classification of species at risk. Access is subject to local laws, protocols and practices. Permission to use Aboriginal traditional knowledge in the assessment and classification of species at risk must be secured from the holders of such knowledge. Aboriginal traditional knowledge used in the assessment and classification of species at risk is to be treated as public knowledge only with the approval of the holders of such knowledge. It is to be organized and presented in a culturally-appropriate, timely and thorough manner, and - to the extent possible - in such a way as to be comprehensible by both Aboriginal and non-aboriginal persons.

Functions

The functions of the ATK Subcommittee are:

- To facilitate access to the best available Aboriginal traditional knowledge and the incorporation of that knowledge in the assessment and classification of species at risk;
- To facilitate and, where necessary, participate - through reliance upon local holders of Aboriginal traditional knowledge - in the gathering of Aboriginal traditional knowledge in the assessment and classification of species at risk;
- To commission Aboriginal Traditional Knowledge Reviews, as needed, which collect and present Aboriginal traditional knowledge concerning eligible candidate species, and receive unsolicited Aboriginal Traditional Knowledge reviews;
- To work jointly with other COSEWIC subcommittees to:
  - develop a candidate list of species for potential assessment by COSEWIC,

- develop and maintain the COSEWIC species priority list;
- commission Species Status Reports; and
- review unsolicited Status Reports

- To facilitate the delivery of the best available Aboriginal traditional knowledge on the status of a species under consideration by COSEWIC to the commissioned writer(s) of a Species Status Report;
- To review and advise on the adequacy of the Aboriginal traditional knowledge content of draft, interim and final Species Status Reports, and provide recommendations concerning the status assessments of particular species; and
- To promote a wider understanding of the nature and the benefits of Aboriginal traditional knowledge concerning the assessment and classification of species at risk.

Structure

Members

The ATK Subcommittee is composed of Aboriginal people experienced in Aboriginal traditional knowledge. The subcommittee normally has at least nine members. All members are appointed by the Minister of the Environment on the basis of their experience concerning Aboriginal traditional knowledge after consultation with any Aboriginal organizations he or she considers appropriate. Each member is appointed during good behavior for a term of four years. A member may be re-appointed, and shall only be removed for cause.

The duties of Members are to:

- perform their duties in an independent manner;
- attend ATK Subcommittee meetings;
- review draft and interim status reports and contribute to status assessment deliberations to the best of their knowledge and ability;
- advise writers of status reports and ATK reviews of appropriate guidelines established for the gathering and recording of Aboriginal traditional knowledge, as well as known sources of information and appropriate contacts, suggest species for the priority list and for status reports, review drafts and interim reports, and provide regional expertise on the status of, and threats to species;
- participate as members of ATK Review Teams, as necessary;
- provide additional and specific expertise as required to support the work of the ATK Subcommittee; and
- participate on other COSEWIC Subcommittees and working groups, as requested by the Chair of COSEWIC.

Co-Chairpersons

The members select, from among the membership, two ATK Subcommittee Co-Chairpersons. Initially, one Co-Chairperson serves a term of two years, and the other a term of four years. Thereafter, both Co-Chairpersons serve staggered four-year terms. A Co-Chairperson may be re-appointed, and shall only be removed by the members for cause, after consultation with COSEWIC.

One ATK Subcommittee Co-Chairperson sits as a member of COSEWIC. The other Co-Chairperson is the alternate ATK Subcommittee member of COSEWIC.

The duties of the Co-Chairs are to:

- serve as spokespersons for the subcommittee to COSEWIC;
- manage the affairs of the subcommittee, including the conducting of meetings;
- participate as members of COSEWIC;
- exercise their discretion in an independent manner; and
- participate on the Co-chairs Subcommittee of COSEWIC.

Operation

Meetings

The ATK subcommittee develops it own operations and procedures, under the authority of COSEWIC.

The person chairing an ATK Subcommittee meeting ensures that the meeting proceeds in an orderly fashion, maintaining COSEWIC's fundamental principles of independence, transparency and integrity.

The ATK Subcommittee attempts to make all decisions on the basis of consensus. Where consensus is not achievable, decisions are decided by a vote. All members except the person chairing the meeting has one vote on all matters. This person votes only in order to break a tie.

The presence of two-thirds of the ATK Subcommittee constitutes a quorum at meetings of the ATK Subcommittee. However, a decision or status recommendation related to the assessment of a species ordinarily requires input of a member from the area providing the most significant habitat for the species, or - if no such member has been appointed - of a member of an Aboriginal People traditionally associated with the species.

At the discretion of the ATK Subcommittee Co-Chairs, observers may attend ATK Subcommittee meetings in whole or in part. Sensitive or personal information may be discussed in camera as requested by Subcommittee members.

Reporting

The ATK Subcommittee:

- provides to COSEWIC copies of its Aboriginal Traditional Knowledge Reviews and unsolicited Aboriginal traditional knowledge reviews. At the request of the ATK subcommittee, COSEWIC provides these documents to relevant authorities, including NACOSAR and wildlife management boards.
- reports to COSEWIC on the adequacy of the Aboriginal traditional knowledge content of draft, interim and final Species Status Reports.
- provides COSEWIC with recommendations concerning the status assessments of species discussed in Species Status Reports.
- provides an Annual Report of its activities to COSEWIC, which COSEWIC will make available on request.

All formal reports, advice and decisions of the ATK Subcommittee are provided in writing.

ATK Review Teams

Where a species is identified by the ATK Subcommittee or by COSEWIC as requiring an assessment that includes the best available Aboriginal traditional knowledge, the ATK Subcommittee may establish an ATK Review Team to provide it with relevant advice. The ATK Review Team is composed of Aboriginal traditional knowledge holders with specific expertise concerning that species and a member from the ATK Subcommittee who is responsible for reporting to the ATK Subcommittee.

ATK Database and Reviews

The ATK Subcommittee commissions ATK reviews on species requiring an assessment, via COSEWIC's procedure for commissioning reports.

Subject to relevant privacy and intellectual property rights and Aboriginal protocols, the ATK Subcommittee maintains a database and audio and video library on Aboriginal traditional knowledge resulting from the ATK Reviews or other work of the Subcommittee.

Network of Aboriginal Traditional Knowledge-holders

The ATK Subcommittee will assemble a network of Aboriginal traditional knowledge-holders and related experts covering the various Ecozones in Canada. The ATK Subcommittee will rely upon those persons:

- to participate as members of ATK Review Teams; or
- to provide additional and specific expertise as required to support the work of the ATK Subcommittee.

Members of this network are selected by the ATK Subcommittee and are not members of COSEWIC. Their mandate and term are specified by the ATK Subcommittee.

Support

As outlined in the Terms of Reference of COSEWIC, the COSEWIC Secretariat provides necessary administrative and technical support to the ATK Subcommittee. The ATK Subcommittee directs to the COSEWIC Secretariat any request for a copy of a Committee report, recommendation or other non-confidential document.

Review and Amendment

These Terms of Reference may be reviewed and changed by the ATK Subcommittee and COSEWIC by agreement.

APPENDIX V

COSEWIC Assessment Process, Categories and Guidelines

Reviewed and approved by COSEWIC in May 2004 [1]

Table 1. Determining eligibility of species for status assessment.

A) Taxonomic validity

COSEWIC would normally only consider species and subspecies or varieties that have been established as valid in published taxonomic works or in peer reviewed communications from taxonomic specialists. COSEWIC would not normally consider other designatable units unless they can be shown to be genetically distinct, separated by a major range disjunction, or biogeographically distinct (refer to Guidelines for Designatable Units Below the Species Level, Appendix F5). Justification for considering designatable units below the species level must be provided.

B) Native species

COSEWIC would normally only consider native species. A native species is a wild species that occurs in Canada naturally, or that has expanded its range into Canada without human intervention from a region where it naturally occurred, has produced viable populations, and has persisted in Canada for at least 50 years.

C) Regularity of occurrence

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[1] In Table 1, Part A was changed to reflect the recent adoption of the term "Designatable Unit", which supersedes (but is not equivalent to) the older term "Population of National Significance". Part C was slightly reworded to better describe the concept of a "native species", while retaining consistency with SARA.

In Table 2, Criteria D was reworded slightly to be more consistent with the corresponding IUCN criteria. In the last part of Table 2, guidelines for the consistent use and application of "Special Concern" were expanded, and similar guidelines for "Extirpated" and "Data Deficient" were added.

The introductory text in Table 3 was modified to reflect the use of the term "Designatable Unit", which supersedes (but is not equivalent to) the older term "Population of National Significance".

In Table 5, the definition for Special Concern was modified slightly to be consistent with the SARA definition.

COSEWIC would normally only consider species which occur regularly in Canada, excluding vagrants.

D) Requires habitat in Canada

COSEWIC considers species that are year-round residents in Canada. COSEWIC also considers a species which, although not a full-time residents in Canada, meet the other eligibility criteria and require habitat in Canada for a key life history stage.

E) Special cases

Notwithstanding the above guidelines, a taxon may be considered eligible if there are clear conservation reasons for consideration (for example high risk of extinction). In particular, a species which does not meet the eligibility criteria but which is at risk in its primary range outside of Canada could be considered for designation.

Reasons for considering a special case must be presented and supporting information must be provided; this should normally be reviewed and agreed to by COSEWIC before a status report is prepared.

Table 2. COSEWIC quantitative criteria and guidelines for the status assessment of species.

COSEWIC's revised criteria to guide the status assessment of species. These were in use by COSEWIC by November 2001, and are based on the revised IUCN Red List categories[2] (IUCN 2001). An earlier version of the quantitative criteria was used by COSEWIC from October 1999 to May 2001. For definitions of terms marked in bold italics, see COSEWIC's Glossary of Definitions and Abbreviations (Appendix C).

	Endangered	**Threatened**
A. Declining Total Population		
Reduction in population size based on any of the following 4 options and specifying a-e as appropriate:		
(1) population size reduction that is observed, estimated, inferred, or suspected in the past 10 years or 3 generations, whichever is longer, where the causes of the reduction are clearly reversible AND understood AND ceased, based on (and specifying) one or more of a-e below.	≥ 70 %	≥ 50 %
(2) population size reduction that is observed, estimated, inferred or suspected over the last 10 years or 3 generations, whichever is longer, where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) one or more of a-e below.	≥ 50 %	≥ 30 %
(3) population size reduction that is projected or suspected to be met within in the next 10 years or 3 generations, whichever is longer (up to a maximum of 100 years), based on (and specifying) one or more of b-e below.		
(4) population size reduction that is observed, estimated, inferred, projected or suspected over any 10 year or 3 generation period, whichever is longer (up to a maximum of 100 years), where the time period includes both the past and the future, AND where the reduction or its causes may not have ceased OR may not be understood OR may not be reversible, based on (and specifying) one or more of a-e below.		

a) direct observation
b) an index of abundance appropriate for the taxon
c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
d) actual or potential levels of exploitation
e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites

[2] IUCN 2001. *IUCN* Red List Categories and Criteria: Version 3.1. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK.

	Endangered	Threatened
B. Small Distribution, and Decline or Fluctuation		
1. Extent of occurrence	< 5,000 km^2	< 20,000 km^2
Or		
2. Area of occupancy	< 500 km^2	< 2,000 km^2
For either of the above, specify at least two of a-c:		
(a) either severely fragmented or known to exist at # locations	≤ 5	≤ 10
(b) continuing decline observed, inferred or projected in one or more of the following: i) extent of occurrence ii) area of occupancy iii) area, extent and/or quality of habitat iv) number of locations or populations v) number of mature individuals		
(c) extreme fluctuations in one or more of the following: i) extent of occurrence ii) area of occupancy iii) number of locations or populations iv) number of mature individuals	> 1 order of magnitude	> 1 order of magnitude
C. Small Total Population Size and Decline		
Number of mature individuals	< 2,500	< 10,000
and 1 of the following 2:		
(1) an estimated continuing decline rate of at least:	20% in 5 years or 2 generations (up to a maximum of 100 years in the future)	10% in 10 years or 3 generations (up to a maximum of 100 years in the future)
(2) continuing decline, observed, projected, or inferred, in numbers of mature individuals and at least one of the following (a-b):		
(a) fragmentation– population structure in the form of one of the following:	(i) no population estimated to contain >250 mature individuals	(i) no population estimated to contain >1,000 mature individuals
	(ii) at least 95 % of mature individuals in one population	(ii) all mature individuals are in one population
(b) extreme fluctuations in the number of mature individuals		

D. Very Small Population or Restricted Distribution

(1) # of mature individuals	< 250	< 1,000
Or		
(2) Applies only to threatened:	Population with a very restricted area of occupancy (area of occupancy typically < 20 km²) or number of locations (typically 5 or fewer) such that it is prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and thus is capable of becoming highly endangered or even extinct in a very short time period.	

E. Quantitative Analysis

Indicating the probability of extinction in the wild to be at least:	20% in 20 years or 5 generations, whichever is longer (up to a maximum of 100 years)	10% in 100 years

Special Concern:

those species that are particularly sensitive to human activities or natural events but are not endangered or threatened species.

Species may be classified as being of Special Concern if:

(a) the species has declined to a level of abundance at which its persistence is increasingly threatened by genetic, demographic or environmental stochasticity, but the decline is not sufficient to qualify the species as Threatened; or
(b) the species is likely to become Threatened if factors suspected of negatively influencing the persistence of the species are neither reversed nor managed with demonstrable effectiveness; or
(c) the species is near to qualifying, under any criterion, for Threatened status; or
(d) the species qualifies for Threatened status but there is clear indication of rescue effect from extra-limital populations.

Examples of reasons why a species may qualify for "Special Concern":

- A species that is particularly susceptible to a catastrophic event (e.g., a seabird population near an oil tanker route)
- A species with very restricted habitat or food requirements for which a threat to that habitat or food supply has been identified (e.g., a bird that forages primarily in old-growth forest, a plant that grows primarily on undisturbed sand dunes, a fish that spawns primarily in estuaries, a snake that feeds primarily on a crayfish whose habitat is threatened by siltation
- A recovering species no longer considered to be Threatened or Endangered but not yet clearly secure

Examples of reasons why a species may not qualify for "Special Concern":

- A species existing at low density in the absence of recognized threat (e.g., a large predatory animal defending a large home range or territory)
- A species existing at low density that does not qualify for Threatened status for which there is a clear indication of rescue effect

Guidelines for use of Extirpated

A species may be assessed as extinct or extirpated from Canada if:

- there exists no remaining habitat for the species and there have been no records of the species despite recent surveys, or
- 50 years have passed since the last credible record of the species, despite surveys in the interim, or
- there is sufficient information to document that no individuals of the species remain alive.

Guidelines for use of Data Deficient

Data Deficient should be used for cases where the status report has fully investigated all best available information yet that information is insufficient to: a) satisfy any criteria or assign any status, or b) resolve the species' eligibility for assessment.

Examples:

- Records of occurrence are too infrequent or too widespread to make any conclusions about extent of occurrence, population size, threats, or trends.
- Surveys to verify occurrences, when undertaken, have not been sufficiently intensive or extensive or have not been conducted at the appropriate time of the year or under suitable conditions to ensure the reliability of the conclusions drawn from the data gathered.
- The species' occurrence in Canada cannot be confirmed or denied with assurance.

Data Deficient should **not** be used if: a) the choice between two status designations is difficult to resolve by COSEWIC, or b) the status report is inadequate and has not fully investigated all best available information (in which case the report should be rejected), or c) the information available is minimally sufficient to assign status but inadequate for recovery planning or other such use.

Table 3. Guidelines for modifying status assessment based on rescue effect.

Species whose geographic range extends beyond that of the COSEWIC unit being designated (e.g. across an international boundary or into another Population of National Significance within Canada) are first assessed at the regional level (i.e., the unit being designated) using the quantitative criteria in Table 2. The potential for "rescue" is then considered. The rescue effect is the immigration of gametes or individuals that have a high probability of reproducing successfully, such that extirpation or decline of a population, or some other Designatable Unit, can be mitigated. If the potential for rescue is high, the risk of extirpation may be reduced, and the status may be downgraded. COSEWIC addresses this by applying the following guidelines developed by IUCN for this purpose (Gardenfors et al. 1999[3]).

Likelihood of propagule migration	
Are there any conspecific populations outside the region within a distance from which propagules could reach the region? Are there any effective barriers preventing dispersal to and from neighbouring populations? Is the species capable of long-distance dispersal? Is it known to do so?	If there are no conspecific populations in neighbouring regions or propagules are not able to disperse to the region, the regional population behaves as an endemic and the category should be left unchanged.
Evidence for the existence of local adaptations	
Are there any known differences in local adaptation between regional and extra-regional populations, i.e. is it probable that individuals from extra-regional populations are adapted to survive within the region?	If it is unlikely that individuals from extra-regional populations would be able to survive within the region, the category should be left unchanged.
Availability of suitable habitat	
Are current conditions of habitats and/or other environmental (including climatological) requirements of the taxon in the region such that immigrating propagules are able to	If there is not enough suitable habitat and current conservation measures are not leading to an improvement of the habitat within a foreseeable future, immigration from outside the region will not decrease extinction risk and the

[3] Gardenfors, U., J.P.Rodriquez, C. Hilton-Taylor, C. Hyslop, G. Mace, S. Molur and S. Poss. 1999. *Draft guidelines for the application of Red List criteria at national and regional levels.* Species 31-32:58-70.

successfully establish themselves (i.e. are there inhabitable patches), or has the taxon disappeared from the region because conditions were not favourable?	category should be left unchanged.
Status of extra-regional populations	
How abundant is the taxon in neighbouring regions? Are the populations there stable, increasing or decreasing? Are there any important threats to those populations? Is it probable that they produce an appreciable amount of emigrants, and will continue to do so for the forseeable future?	If the taxon is more or less common outside the region and there are no signs of population decline and the taxon is capable of dispersing to the region and there is (or soon will be) available habitat, downgrading the category is appropriate. If the taxon is currently decreasing in neighbouring regions the 'rescue effect' is less likely to occur, hence downgrading the category may not be appropriate.
Degree of dependence on extra-regional sources	
Are extant regional populations self-sustaining (i.e. have they shown a positive reproductive rate over the years) or are they dependent on immigration for long-term survival (i.e. are the regional populations sinks)?	If there is evidence that a substantial number of propagules regularly reach the region and the population still has a poor survival, the regional population may be a sink. If so, and there are indications that the immigration will soon cease, upgrading the category may be appropriate.

Table 4: Policy for modifying status assessment based on quantitative criteria

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COSEWIC, IUCN and other groups recognize the need for additional assessment tools. Specifically, there is a need to consider life-history variation amongst species and other taxa. COSEWIC has developed the following guideline:

In addition to the quantitative guidelines, COSEWIC will base its assessment on the degree to which various life-history characteristics (e.g., age & size at maturity, dispersal strategy, longevity) affect extinction probability and the likelihood that the species is vulnerable to the Allee effects of density dependence.

All else being equal:

- species with delayed age at maturity tend to be at greater risk of extinction than species with early age at maturity
- for indeterminately growing organisms (species that continue to grow after attaining maturity), larger species tend to be at greater risk of extinction than smaller species
- species with low dispersal tend to be at greater risk of extinction than species with high dispersal
- species with non-overlapping generations tend to be at greater risk of extinction than species with overlapping generations.

Table 5. COSEWIC status categories.

Extinct (X) - A wildlife species that no longer exists.

Extirpated (XT) - A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.

Endangered (E) - A wildlife species facing imminent extirpation or extinction.

Threatened (T) - A wildlife species likely to become endangered if limiting factors are not reversed.

Special Concern (SC) - A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

Data Deficient (DD) - A wildlife species for which there is inadequate information to make a direct, or indirect, assessment of its risk of extinction.

Not At Risk (NAR) - A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

APPENDIX VI

COSEWIC
Applications for Species Assessment
and Unsolicited Species Status Reports
May 2004

All of COSEWIC's actions are directed towards assessing the biological status of native wild species suspected of being at risk of extinction or extirpation across their range in Canada. COSEWIC uses the best available information relevant to assessing a species' risk of extinction or extirpation, which it may obtain from credible sources of knowledge of the species and its habitat. The evaluation process is independent and transparent, and the results are reported to the Canadian Endangered Species Conservation Council (CESCC) and the Canadian public. COSEWIC is established under Section 14(1) of the federal Species at Risk Act (SARA) and its assessments form the foundation for the legal List of Species at Risk under that legislation. Sections 21, 22 and 28 of SARA direct that COSEWIC will consider applications for the assessment of species and species status reports accompanied by applications for the assessment of species, subject to regulations. Any such application constitutes a request for assessment.

COSEWIC maintains and continually updates a Candidate List of species for commissioning Status Reports. Before preparing a request for assessment, potential applicants are asked to contact, via the COSEWIC Secretariat, the appropriate COSEWIC Species Specialist Subcommittee (SSC) or, in the case of a species not covered by any of COSEWIC's nine SSC's, the Chair of COSEWIC. Potential applicants will be advised concerning the estimation of threats to the species in question, the imminence of the threats, the species' current standing on COSEWIC's Candidate List for assessment, valuable sources of information, and other advice concerning the preparation of a request for assessment and/or status report.

Requests for Assessment

Scope of Applications

Applications to COSEWIC may consist either of:

- a request to COSEWIC to consider a particular species for assessment, or;
- a request to COSEWIC to consider a particular species for assessment accompanied by Species Status Report that has not been solicited by COSEWIC.

COSEWIC's approach to assigning status is, first, to examine a species as a whole. Only if deemed appropriate in cases where a single status designation for a species is not sufficient to accurately portray probabilities of extinction within the species will COSEWIC examine the status of entities below the level of species, be they subspecies, varieties, or geographically or genetically distinct populations (i.e. Designatable Units).

- *Requests for Assessment* - A Request for Assessment application may propose an eligible species or Designatable Unit for assessment. A request for assessment of a subspecies, variety, or geographically or genetically distinct population must contain a clear explanation of the validity of the Designatable

Unit(s).

- *Species Status Reports* - Unless specifically requested by COSEWIC, a Species Status Report must consider the whole of a species' occurrence within Canada. Should a Species Status Report propose separate status designations for putative Designatable Units within the species in question, the report must contain clear explanations of the validity of the Designatable Units.

Species' Eligibility

To be eligible for assessment, a species must meet certain criteria regarding taxonomic validity, native origin, regularity of occurrence, and dependence on Canadian habitat. COSEWIC normally only considers species and subspecies or varieties that have been established as taxonomically valid. They must be native to Canada, occur regularly in Canada (thus excluding vagrants), and require habitat in Canada for at least one key life history stage. Any case that is an exception to these rules must be justified with supporting information; this should normally be reviewed and agreed to by COSEWIC before a status report is prepared. Ineligible species (for example domestic, feral, or artificially introduced species of animals and plants, or bacteria and viruses which are specifically excluded by SARA) cannot be assessed by COSEWIC.

Imminence of Threat

Species for which the threat of extinction or extirpation is extreme (e.g., greater than 50% probability of loss within 10 years) and for which immediate action is required if the species is to survive may be subject to emergency assessment. If an emergency assessment is requested, a full justification for considering the threat to be extreme must be provided. A status report is not required to accompany a request for an emergency assessment but is recommended. *Applicants who wish to request an emergency assessment are strongly urged to contact COSEWIC and the appropriate SSC Co-Chair beforehand to determine if the emergency assessment is warranted.*

Justification for the Request and Sources of Information

An explication of why the species might be considered to be at risk is required. This should indicate the nature of the particular threats to the species, population and distribution trends of the species, evidence of decline, and other estimations of its status in Canada including General Status of Species in Canada rankings and provincial or territorial rankings, or other systems. If there is more information than can be contained in three pages of text, a species status report should be prepared. Sources for the information contained in the justification for the request, be they published literature, unpublished reports, personal observations, or the observations of others, must be listed.

Conflict of Interest

Applicants for Species Status Assessment and suppliers of Species Status Reports for COSEWIC must declare any conflicts of interest pertaining to the application for assessment and its possible outcome (Annex I). Failure to do so may cause applications and reports to be returned unreceived by COSEWIC.

Species Status Reports

A Species Status Report for COSEWIC is a comprehensive, fully documented technical compilation and analysis of the best available information on a species' status in Canada that indicates the threats to that species. A Species Status Report for COSEWIC must conform to the guidelines for preparation of Status Reports.

Waiver of Moral Rights and Permission to use Species Status Report

Authors and owners of Species Status Reports must grant permission to COSEWIC and to Environment Canada to use, edit, reformat, reproduce, modify, distribute, and share the Species Status Report and any subsequent revisions to that Report by the author. Authors furthermore must provide Environment Canada with a waiver of their moral rights to the Species Status Report. A separate waiver is required from each contributing author. The permission to use the Species Status Report and the waiver of moral rights enable COSEWIC and Environment Canada to treat the final COSEWIC Assessment and Status Report as a living document subject to periodic updates as may be required without having to specifically name the author of the original Species Status Report.

Accordingly, legal owners of a Species Status Report must sign a copy of Annex II (Permission To Use Species Status Report) and each author of a report must sign a copy of Annex III (Waiver of Moral Rights) . Failure to include signed copies of Annexes II and III with a Species Status Report that accompanies an Application for Assessment may cause the report to be returned unreceived by COSEWIC.

Employees of the Government of Canada who prepare Species Status Reports are not required to tender the permission in Annex II as the report is automatically the property of the Crown. Employees of a province or territory who prepare Species Status Reports may or may not be required to provide Annex II and should contact the COSEWIC Secretariat (cosewic/cosepac@ec.gc.ca). Author(s) who are government employees are, however, still required to sign the waiver in Annex III.

Completeness of Applications

An Application for Assessment that is incomplete cannot be considered by COSEWIC and will be returned. An application must contain:

- A completed application form "Request for Assessment", signed and dated, that includes a justification for why the species may be at risk of extinction
- Annex I (Conflict of Interest), completed and signed separately by all applicants

If the Application also includes a Species Status Report, it must also include:

- A Copy of Annex II (Permission To Use Species Status Report), signed by all copyright owners (ordinarily the authors) with regards to the Status Report
- Copies of Annex III (Waiver of Moral Rights) signed by each of the authors of the Status Report

An Application for Assessment that is complete but is accompanied by a Species Status Report that is not acceptable may be considered by COSEWIC only on its merits as a request for assessment of a particular species.

Submission of Applications

Applications for Assessment should be mailed to:

COSEWIC Secretariat
c/o Canadian Wildlife Service
Environment Canada
Ottawa, Ontario K1A 0H3

attn: the appropriate Species Specialist Subcommittee or the Chair of COSEWIC

(courier address: Vincent Massey Bldg., 4th floor - 351 St. Joseph blvd, Gatineau, Quebec, J8Y 3Z5)

Process

Applications for Assessment, including Applications that are accompanied by an unsolicited Species Status Report, will initially be considered by the appropriate SSC or, in the case of a species not covered by one of COSEWIC's nine SSCs, an *ad hoc* subcommittee struck by the Chair of COSEWIC.

An Application for Assessment that is not accompanied by a Species Status Report may be forwarded to COSEWIC by the SSC or *ad hoc* subcommittee with a recommendation and may be received by COSEWIC for consideration at a Species Assessment Meeting. If accepted, the application will be referred to the COSEWIC Co-chairs subcommittee for placement on the COSEWIC Candidate List and assigned a priority level for commissioning a Status Report.

A Species Status Report that accompanies an Application for Assessment is first evaluated by the appropriate SSC or *ad hoc* subcommittee. A Status Report that is complete and in conformity to the guidelines for completion of Status Reports, as judged by the SSC or *ad hoc* subcommittee, will be subjected to review in compliance with normal COSEWIC procedure for all status reports. A valid Status Report will be forwarded to the relevant jurisdictions (including, as necessary, any relevant Wildlife Management Boards) and the COSEWIC ATK Subcommittee. Jurisdictions are allowed 6 months to review all reports prior to a COSEWIC Species Assessment Meeting. The report will be distributed to all members of COSEWIC two months prior to a Species Assessment Meeting accompanied by a copy of the Application, a Technical Summary prepared by the SSC or *ad hoc* subcommittee, and a recommendation from the SSC or *ad hoc* subcommittee. Throughout this review process, the author(s) of a Species Status Report may be asked to make editorial changes, add available information, and/or delete inapplicable sections of the report. Failure to comply with such requests may result in a report being deemed unacceptable.

The application and report will only be received for consideration by COSEWIC at a Species Assessment Meeting.

An Application for Assessment that is complete but is accompanied by an unsolicited Species Status Report that is incomplete or not in conformity to the guidelines for completion of status reports as judged by the SSC or *ad hoc* subcommittee, or is unaccompanied by a waiver of moral rights and a grant of permission to use the Species Status Report may be considered by COSEWIC as though only a Request for Assessment without a status report. In this case, the Species Status Report will be returned unreceived by COSEWIC. The Applicant will have the option either to proceed with the Request for Assessment without the Status Report or withdraw the Application in order to revise the report.

An Application for Assessment that requests an emergency assessment will be consigned to an ad hoc Emergency Assessment Subcommittee consisting of the Chair of COSEWIC, the appropriate Subcommittee Co-chair(s), and the relevant jurisdictional

member(s) of COSEWIC. The Emergency Assessment Subcommittee will consider the imminence of the threats to the species and whether a status listing on an emergency basis is warranted. If the emergency listing is warranted, the Emergency Assessment Subcommittee will forward its recommendation to the federal Minister of Environment and advise COSEWIC. If the emergency listing is not warranted, the Application will be considered in the same manner as a regular request for assessment.

Outcomes

An Application for Assessment that is not accompanied by a Species Status Report or is accompanied by an unacceptable Species Status Report will either:

- be accepted by COSEWIC and result in the species in question being placed on the Candidate List and assigned a priority level for commissioning a Species Status Report. Priority level will be determined by COSEWIC on advice from the appropriate SSC or *ad hoc* subcommittee, or;
- be accepted by COSEWIC and result in the species in question being assigned a new level of priority for commissioning a species status report, or;
- be rejected by COSEWIC.

An unsolicited Species Status Report that accompanies an Application for Assessment will either:

- be accepted by COSEWIC and result in the species in question being assessed by COSEWIC at a Species Assessment Meeting, or;
- be rejected by COSEWIC.

An Application for Assessment that requests an emergency assessment may either:

- be accepted by the *ad hoc* Emergency Assessment Subcommittee and forwarded to the Minister of Environment with a recommendation, or;
- be rejected by the *ad hoc* Emergency Assessment Subcommittee and considered in the same terms as an other request for assessment.

Applicants will be informed by COSEWIC of its decisions. For all rejected Applications and Status Reports, COSEWIC will indicate to the applicant the reason(s) for rejection. In these matters, COSEWIC's decision is final for any particular Application.

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Additional Information on the COSEWIC Website (*http://www.cosewic.gc.ca/index.htm*):

- Assessment Process and Criteria
  http//www.cosewic.gc.ca/pdf/English/Assessment_process_e.pdf
- Guidelines for Recognizing Designatable Units Below the Species Level
  http//www.cosewic.gc.ca/eng/sct2/sct2_5_e.cfm
- Instructions for the Preparation of COSEWIC Status Reports
  http://www.cosewic.gc.ca/pdf/English/Instructions.pdf

Attachments:

Application Form "Request for Assessment" (Required for all applications)
Annex I: Declaration of Conflict of Interest (Required for all applications)
Annex II: Permission To Use Species Status Report (To accompany status reports only)
Annex III: Waiver of Moral Rights (To accompany status reports only)

COSEWIC

Request for Species Assessment

Date of Application:_____

Name(s) of applicant(s):
Address:
telephone, fax, email:

Status report: attached ☐ not attached ☐

Species (Scientific name, English and French common names):

_____

Species' Distribution

Globally:

In Canada:

Imminence of Threat:

extreme ☐ very high ☐ high ☐ moderate ☐ not known ☐ not applicable ☐

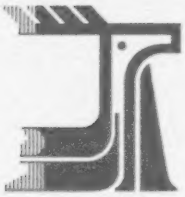
Is the threat of extinction or extirpation from Canada sufficiently grave as to warrant an emergency assessment? yes ☐ no ☐

Justification for Request for Assessment (maximum 3 pages)
(i.e. evidence of decline, threats to the species, other reasons to suspect the species is at risk of extinction or extirpation from Canada)

Sources of Information:

The applicant(s) attest that the information in this request for assessment is, to the greatest extent possible, accurate and true. Furthermore, if a Species Status Report is attached, the author(s) agree(s) that the status report may be reviewed and edited by COSEWIC and the corresponding Subcommittee Co-Chair, that the author(s) will receive no royalty or other compensation from the Government of Canada or from COSEWIC, and that the manuscript contains no matter that is libellous, invades individual privacy, or infringes upon any proprietary rights.

Signature(s): _____



Annex I

Declaration of Conflict of Interest
To accompany all applications

A separate copy of this form must be completed by each applicant.

Pursuant to the Request for Assessment of:

(species)_____,

I, (name)_____, hereby declare any and all proprietary or commercial interest or conflicts of interest I may have that relate directly or indirectly to the subject of this application.

Details:

Signature _____

Date:_____

Annex II

Permission To Use Species Status Report
To accompany submission of a status report

I/We _____ as legal
owner(s) *name(s)*

of the intellectual property in the Species Status Report entitled

(Update) Status report on the _____ in Canada
name of species

hereby grant permission to COSEWIC and to Environment Canada (EC) to use, edit, reformat, reproduce, modify, distribute, and share the Species Status Report, a copy of which is attached to this Permission, in whole or in part, in support of the COSEWIC species status assessment process.

I/we understand that EC will be using the Species Status Report to produce a COSEWIC Assessment and Status Report and future updates to this latter report. I/we also understand and agree the COSEWIC Assessment and Status Report and future updates shall be the intellectual property of EC and that I/we have no rights to them.

I am/we are submitting, with this Permission, waivers of Moral Rights from all authors who contributed to the Species Status Report.

Signature _____

Name _____
Address _____
_____
_____

Signature _____

Name _____
Address _____
_____
_____

Signature _____

Name _____
Address _____
_____
_____

Annex III

Waiver of Moral Rights
To accompany submission of a status report

A separate copy of this form must be completed by each author.

I _____ declare that I
name of author

have contributed to the creation or production of the Species Status Report entitled:

(Update) Status report on the _____ in Canada
name of species

(hereinafter referred to as the "Work") and briefly described as a report containing the best available information on the species status in Canada that will form the basis for a status assessment by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). I recognize that:

_____
name(s) of copy right owner(s)

is/are the lawful owner(s) of the copyright in the Work.

I am are fully aware that my moral rights, as defined by the Copyright Act, include a) the right of having my name associated with the Work, where reasonable in the circumstances; and b) the right to the integrity of the Work such as preventing the Work from being changed, corrected or amended.

I hereby waive in whole all moral rights which I may have in the Work in favour of the Government of Canada (Environment Canada), including the right to the integrity of the Work, the right to be associated with the Work in all contexts and in connection with all products and/or services.

For purposes of this Waiver, "Work" shall include without limitation all multimedia presentations, software, documentation, data, designs, reports, flowcharts, specification and source code listings, and of any related works, including any enhancements, modifications, or additions to the software and hardware products owned, marketed, or used by the Government of Canada.

Signed, sealed and delivered in the presence of

_____ _____
Witness (signature) Author (signature)

_____ _____
Name of Witness (printed) Name of Author (printed)

_____
Date

APPENDIX VII

COSEWIC Status Assessments (November 2003 and May 2004).

Results are grouped by taxon and then by status category. A reason for designation is given for each species. A short history of status designations follows. The range of occurrence in Canada for each species (by province, territory or ocean) is provided.

Mammals

Beluga Whale ***Delphinapterus leucas*** **Endangered**
Eastern Hudson Bay population

Assessment Criteria A2d; C1; E

Reason for Designation
The population was reduced by at least 50% and continues to decline. Overhunting continues throughout its summer and migratory range. Mathematical models predict that it will likely disappear under present hunting levels in less than 10 to 15 years. Concerns have been expressed about habitat degradation of estuaries by hydroelectric projects, and by small vessel traffic disturbance.

Occurrence NU QC Arctic Ocean Atlantic Ocean

Status History
Designated Threatened in April 1988. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Beluga Whale ***Delphinapterus leucas*** **Endangered**
Ungava Bay population

Assessment Criteria A2a; D1

Reason for Designation
All signs indicate that the population residing in Ungava Bay is very low and may be extirpated. However, it is difficult to definitively conclude that they have been extirpated because beluga from other populations may visit Ungava Bay. Hunting caused the population decline and continues in Ungava Bay, posing a threat to any remaining beluga.

Occurrence QC Arctic Ocean Atlantic Ocean

Status History
Designated Endangered in April 1988. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Peary Caribou ***Rangifer tarandus pearyi*** **Endangered**

Assessment Criteria A2a

Reason for Designation
This caribou is a Canadian endemic subspecies. Numbers have declined by about 72% over the last three generations, mostly because of catastrophic die-off likely related to severe icing episodes. The ice covers the vegetation and caribou starve. Voluntary restrictions on hunting by local people are in place, but have not stopped population declines. Because of the continuing decline and expected changes in long-term weather patterns, this subspecies is at imminent risk of extinction.

Occurrence NT NU

Status History
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground

Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. In May 2004 all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The subspecies pearyi is comprised of a portion of the former "Low Arctic population", and all of the former "High Arctic" and "Banks Island" populations, and it was designated Endangered in May 2004. Last assessment based on an update status report.

Beluga Whale ***Delphinapterus leucas*** **Threatened**
St. Lawrence Estuary population

Assessment Criteria D1

Reason for Designation

The population was severely reduced by hunting, which continued until 1979. High contaminant loads may have also contributed to the population decline. Aerial surveys since 1973 suggest that the decline has ceased, but do not provide clear evidence of a significant increase in numbers. Levels of many contaminants remain high in beluga tissues. The whales and their habitat are threatened by contaminants, vessel traffic, and industrialization of the St. Lawrence watershed.

Occurrence QC Atlantic Ocean

Status History

Designated Endangered in April 1983. Status re-examined and confirmed in April 1997. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Beluga Whale ***Delphinapterus leucas*** **Threatened**
Cumberland Sound population

Assessment Criteria D1

Reason for Designation

Numbers of belugas using Cumberland Sound have declined by about 1500 individuals between the 1920s and present. The population decline is believed to have been caused by hunting by the Hudson Bay Company into the 1940s and by the Inuit until 1979. Hunting has been regulated since the 1980s. Current quotas (41 in 2003) appear to be sustainable. Concerns have been raised about increased small vessel traffic and the associated noise of outboard motors, as well as fishery removals of Greenland halibut, a food of belugas.

Occurrence NU Arctic Ocean

Status History

The Southeast Baffin Island-Cumberland Sound population was designated Endangered in April 1990. In May 2004, the structure of the population was redefined and named "Cumberland Sound population", and the Southeast Baffin Island animals were included as part of the Western Hudson Bay population. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Plains Bison ***Bison bison bison*** **Threatened**

Assessment Criteria D1+2

Reason for Designation

There are currently about 700 mature bison of this subspecies in three free-ranging herds and about 250 semi-captive mature bison in Elk Island National Park. The largest free-ranging herd, in the Pink Mountain area of BC, is outside the historical range of this subspecies. The population in Prince Albert National Park is increasing by about 10% a year. The greatest problem facing these bison in Canada is the lack of habitat, due to conversion to agriculture and urbanization. Additional threats include domestic cattle disease and the risk of genetic pollution from escaped ranched bison, including some that may carry cattle genes. The total number of free-ranging and semi-captive mature bison of this subspecies is just under 1000, and there are fewer than 5

populations.

Occurrence BC AB SK MB

Status History

Designated Threatened in May 2004. Assessment based on a new status report.

Barren-ground Caribou *Rangifer tarandus groenlandicus* Special Concern
Dolphin and Union population

Assessment Criteria Not applicable

Reason for Designation

This population of caribou is endemic to Canada. Once thought to be extinct, numbers have recovered to perhaps a quarter of the population historic size. They have not been censused since 1997 and are subject to a high rate of harvest, whose sustainability is questioned by some. They migrate between the mainland and Victoria Island and climate warming or increased shipping may make the ice crossing more dangerous. The population, however, increased substantially over the last three generations and was estimated at about 28000 in 1997.

Occurrence NT NU

Status History

The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. In May 2004 all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The Dolphin and Union population is comprised of a portion of the former "Low Arctic population", and it was designated Special Concern in May 2004. Last assessment based on an update status report.

Beluga Whale *Delphinapterus leucas* Special Concern
Western Hudson Bay population

Assessment Criteria Not applicable

Reason for Designation

The population appears to be relatively abundant, although it has not been surveyed for 15 years and may consist of more than one population. The population is subject to substantial removals by hunting in parts of its range, and is potentially threatened by shipping and hydroelectric dams.

Occurrence MB NU ON Arctic Ocean Atlantic Ocean

Status History

Designated Not at Risk in April 1993. The population was redefined in May 2004 to include those Southeast Baffin Island animals outside Cumberland Sound, previously considered part of the "Southeast Baffin Island-Cumberland Sound population" which is now called "Cumberland Sound population". Status re-examined and designated Special Concern in May 2004. Last assessment based on an update status report.

Beluga Whale *Delphinapterus leucas* Special Concern
Eastern High Arctic - Baffin Bay population

Assessment Criteria Not applicable

Reason for Designation

The population overwinters in Baffin Bay and west Greenland and may consist of two distinct populations. It is heavily hunted in west Greenland. However, most of the population winters in Baffin Bay and the high Arctic where it is not hunted. Hunting pressure in Canadian waters is low in summer.

Occurrence NU Arctic Ocean

Status History

Designated Special Concern in April 1992. Status re-examined and confirmed in May 2004. Last

assessment based on an update status report.

Grey Whale ***Eschrichtius robustus*** **Special Concern**
Eastern North Pacific population

Assessment Criteria Not applicable

Reason for Designation
Grey whales migrate each year from their winter calving grounds in Mexico to their summer feeding areas in northern Alaska, Russia and Canada. Most of the population passes along the BC coastline, and some individuals repeatedly spend the entire summer feeding in BC (about 80). The population increased by 2.5% per year following the cessation of whaling, and peaked, within the range of pre-exploitation estimates, at about 27,000 animals in 1998. The extent of recovery of the summer resident group is unknown. However, over one-third of the population died from 1998 to 2002 (possibly due to a lack of food in Alaska). Birth rates, survival rates and other indicators suggest that the decline has ceased and that the population is stable or increasing
since 2002. The whales are susceptible to human activities in their 4 breeding lagoons in Mexico, as well as to entanglement in fishing gear and collisions with boats throughout their range. Underwater noise associated with proposed oil development in BC could alter migration patterns. The small group of summer-resident whales could also be threatened by subsistence whaling in the USA.

Occurrence Pacific Ocean Arctic Ocean

Status History
Designated Not at Risk in April 1987. Status re-examined and designated Special Concern in May 2004. Last assessment based on an update status report.

Harbour Porpoise ***Phocoena phocoena*** **Special Concern**
Pacific Ocean population

Assessment Criteria Not applicable

Reason for Designation
They appear to be particularly sensitive to human activities, and are prone to becoming entrapped and killed in fishing nets. They are a short lived shy species that are now rarely seen at the highly developed areas of Victoria and Haro Strait. Continued development and use of its prime habitat by humans are some of the main threats. They are displaced by underwater noise, and could be affected by contaminants in their food chain.

Occurrence Pacific Ocean

Status History
Species considered in April 1991 and placed in the Data Deficient category. Re-examined in November 2003 and designated Special Concern. Last assessment based on an update status report.

Spotted Bat ***Euderma maculatum*** **Special Concern**

Assessment Criteria The estimated Canadian population (< 1000 adults) met criterion for Threatened D1, but it was designated Special Concern because there is a possibility of rescue effect from neighbouring populations in the United States. Foraging and roosting habitats appear to be secure in Canada.

Reason for Designation
In Canada, this species occurs in the intermontane grasslands and ponderosa pine woodlands of southern British Columbia. It is a distinctively coloured bat that is unmistakable to identify. Unlike any other Canadian species of bat, its echolocation calls are within the range of human hearing. It roosts in crevices in large cliff faces. It is considered the easiest to count and best censused species of bat in Canada. Population estimates, based on relatively good census effort, suggests that there are fewer than 1000 adults. At this time, numbers appear to be stable, and there are relatively few threats to populations or habitats. Perhaps the biggest threat to this species is its small population size. Use of pesticides on its insect prey, loss of foraging habitat, and disturbance at roosting sites by rock climbers are potential threats. Rescue may be possible from

neighbouring populations in the United States, however, movements of individuals between Canadian and US populations are not documented.

Occurrence BC

Status History

Designated Special Concern in April 1988. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Steller Sea Lion ***Eumetopias jubatus*** **Special Concern**

Assessment Criteria Met criteria for Threatened, D2, but was designated Special Concern because the population is increasing and there is a possible rescue effect.

Reason for Designation

There are only three breeding locations in British Columbia. Although the population is increasing, they are sensitive to human disturbance while on land. Threats include the possibility of acute oil spills. There are unexplained declines in other populations to the north and west of British Columbia.

Occurrence BC Pacific Ocean

Status History

Designated Not at Risk in April 1987. Status re-examined and designated Special Concern in November 2003. Last assessment based on an update status report.

Beluga Whale ***Delphinapterus leucas*** **Not at Risk**
Eastern Beaufort Sea population

Assessment Criteria Not applicable

Reason for Designation

This population is currently large and hunted at sustainable levels under an international agreement.

Occurrence NT Arctic Ocean

Status History

Designated Not at Risk in April 1985 and in May 2004. Last assessment based on an update status report.

Fringed Bat ***Myotis thysanodes*** **Data Deficient**

Assessment Criteria Not applicable

Reason for Designation

This species is rarely reported in its Canadian range. There are, however, a few sites in the Okanagan Valley where they regularly can be captured during the summer. There is a lack of data about the extent of its Canadian range and the habitat that is important for foraging and roosting. We also do not know the population size or trends, nor any key demographic characteristics, such as population structure, reproduction or survival rates. It is not known if this species overwinters in Canada or migrates south for the winter; however, there are maternity colonies recorded in Canada.

Occurrence BC

Status History

Designated Special Concern in April 1988. Species considered in May 2004 and moved to the Data Deficient category. Last assessment based on an update status report.

Keen's Long-eared Bat ***Myotis keenii*** **Data Deficient**

Assessment Criteria Not applicable

Reason for Designation

The situation for this species is generally similar to that for any species of bats that occur in Canada. There are no data about populations sizes, populations trends, patterns of reproduction (it is not known if females bear young annually; age at sexual maturity is unknown), and there are only scattered records documenting occurrence and patterns of distribution. Furthermore, there is a lack of information about patterns of habitat use (roosting, foraging) or data about migration.

Uncertainty about the taxonomic status of this species further complicates the matter. It is unknown if it is a distinct taxon. It is unknown if this is a distinct population.

Occurrence BC

Status History

Designated Special Concern in April 1988. Species considered in November 2003 and moved to the Data Deficient category. Last assessment based on an update status report.

Birds

Horned Lark *strigata* subspecies ***Eremophila alpestris strigata*** **Endangered**

Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v); D1

Reason for Designation

Although this species has always been rare in Canada, it has declined steadily throughout its range over the last 50 years and is now nearly extirpated from Canada.

Occurrence BC

Status History

Designated Endangered in November 2003. Assessment based on a new status report.

Northern Bobwhite ***Colinus virginianus*** **Endangered**

Assessment Criteria A2b; C1+2a(i)

Reason for Designation

This species depends on native prairie and old meadow habitats that have largely disappeared from its southern Ontario range. Its population has declined drastically over the last 30 years and shows no sign of significant recovery. There is perhaps only one viable population in Canada, on Walpole Island, Ontario. The status of this species is complicated by the presence of many introduced populations which typically do not persist and whose genetic composition may pose a threat to native populations.

Occurrence ON

Status History

Designated Endangered in April 1994. Status re-examined and confirmed in November 2003. Last assessment based on an update status report.

Red Crossbill *percna* subspecies ***Loxia curvirostra percna*** **Endangered**

Assessment Criteria C1

Reason for Designation

The *percna* subspecies of the red crossbill is considered a distinctive taxonomic group, with breeding likely restricted to the island of Newfoundland. Various population estimates suggest that it is has declined markedly and steadily over the last 50 years, along with declines in the extent and quality of its habitat. A few records of the *percna* subspecies exist for Nova Scotia and other locations, but there is not enough information to determine its status there.

Occurrence NL

Status History

Designated Endangered in May 2004. Assessment based on a new status report.

Loggerhead Shrike ***Lanius ludovicianus excubitorides*** **Threatened**
***excubitorides* subspecies**

Assessment Criteria A2bc

Reason for Designation

This raptorial songbird has suffered significant (more than 80 %) population declines over the past 35 years. These declines nave been linked to loss of native prairie and pastureland habitats and pesticide residues.

Occurrence AB SK MB

Status History
The species was considered a single unit and designated Threatened in April 1986. Split according to subspecies in April 1991. The *excubitorides* subspecies retained the original Threatened designation from April 1986. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Pink-footed Shearwater ***Puffinus creatopus*** **Threatened**

Assessment Criteria D2

Reason for Designation
This seabird breeds on only three islands off the coast of Chile, where it has suffered significant but unmeasured declines due to nest predation by introduced predators, exploitation by humans and habitat degradation. It likely incurs mortality due to incidental take by fisheries off the coast of British Columbia during the non-breeding season and would be sensitive to any offshore oil spills there.

Occurrence BC

Status History
Designated Threatened in May 2004. Assessment based on a new status report.

Short-tailed Albatross ***Phoebastria albatrus*** **Threatened**

Assessment Criteria D1+2

Reason for Designation
This species was once an abundant seabird along the coast of British Columbia but its numbers declined to near extinction in early 20th Century. Numbers are now slowly increasing. Albatross populations in general are very sensitive to incidental catch by commercial fisheries and oil spills: while these impacts have not been documented for this species in Canadian waters, they pose a significant potential threat.

Occurrence BC

Status History
Designated Threatened in November 2003. Assessment based on a new status report.

Reptiles

Prairie Skink ***Eumeces septentrionalis*** **Endangered**

Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v)

Reason for Designation
This lizard is confined to a small region (less than 1700 km^2) in Manitoba. It requires sandy soils and mixed grass prairie. Prairie habitat is being fragmented and lost to cultivation, Aspen succession and invasion by exotic leafy spurge. The Manitoba population is isolated from the rest of the species in the USA by over 100 km.

Occurrence MB

Status History
Designated Special Concern in April 1989. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Spotted Turtle ***Clemmys guttata*** **Endangered**

Assessment Criteria B2ab(i,ii,iii,iv,v); C1+2a(i)

Reason for Designation
This species occurs at low density, has an unusually low reproductive potential, combined with a long-lived life history, and occurs in small numbers in bogs and marshes that are fragmented and disappearing. Although some populations are in protected areas, they may have a low probability of persistence, especially because small numbers and isolation reduce population viability. The

low frequency of juveniles in most studied populations suggests these populations are composed largely of remnant, aged cohorts with low reproductive success. Another clear threat is from collection for the pet trade. There is no rescue effect.

Occurrence ON QC

Status History

Designated Special Concern in April 1991. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Western Rattlesnake ***Crotalus oreganos*** **Threatened**

Assessment Criteria Met criteria for Endangered, B2ab(i,ii,iii,v), but designated as Threatened, B2ab(i,ii,iii,v); C1+2a(i); D2, because the population is still widespread although sparse.

Reason for Designation

This species is threatened by rapid expansion of human activities including urbanization, agriculture, forestry and range management in south-central dry valleys of British Columbia. This snake is particularly vulnerable to roads both from direct mortality and from habitat fragmentation. Rattlesnakes are subject to direct persecution and to destruction of critical habitat (hibernacula). The adult rattlesnake population is small, likely fewer than 5,000, and dispersed among only four valleys, probably with little interchange of snakes between valleys. Threats to the species are increased in effect because this snake has late maturity (~8 years), small litters and only breeds about once every 3-4 years.

Occurrence BC

Status History

Designated Threatened in May 2004. Assessment based on a new status report.

Amphibians

Small-mouthed Salamander ***Ambystoma texanum*** **Endangered**

Assessment Criteria B1ab(ii,iii,iv)+2ab(ii,iii,iv)

Reason for Designation

This salamander is restricted solely to Pelee Island in Canada. The extent of occurrence is only 40 Km^2 (effectively the total area of Pelee Island). It occupies only three extant breeding sites and surrounding remnant forested habitat with total area of occupancy equalling not more than 5 Km^2. It has exhibited declines in area, extent and quality of habitat, and in the number of locations on the island where it may be found. Threats to its continued existence include loss of wetland breeding sites and modified drainage patterns.

Occurrence ON

Status History

Designated Special Concern in April 1991. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Fishes

Porbeagle Shark ***Lamna nasus*** **Endangered**

Assessment Criteria A2bd

Reason for Designation

This wide-ranging oceanic shark is the only representative of its genus in the North Atlantic. The abundance has declined greatly since Canada entered the fishery in the 1990s after an earlier collapse and partial recovery. Fishery quotas have been greatly reduced, and the fishery has been closed in some areas where mature sharks occur. The landings now are comprised mostly of juveniles. Its life history characteristics, including late maturity and low fecundity, render this

species particularly vulnerable to overexploitation.

Occurrence Atlantic Ocean

Status History

Designated Endangered in May 2004. Assessment based on a new status report.

White Sturgeon ***Acipenser transmontanus*** **Endangered**

Assessment Criteria A2cde +4bcde

Reason for Designation

A long-lived species with a 30-40 year generation time and late maturity, that has suffered over a 50% decline in the last three generations. Three of six populations are in imminent threat of extirpation. Extant populations are subject to threats of habitat degradation and loss through dams, impoundments, channelization, dyking and pollution. Illegal fishing (poaching) and incidental catches are also limiting. In addition, a developing commercial aquaculture industry may also impose additional genetic, health and ecological risks to wild populations.

Occurrence BC

Status History

Designated Special Concern in April 1990. Status re-examined and designated Endangered in November 2003. Last assessment based on an update status report.

Bigmouth Shiner ***Notropis dorsalis*** **Not at Risk**

Assessment Criteria Not applicable

Reason for Designation

There are no demonstrable or potential threats and the species is not particularly sensitive to habitat disturbances. It has been found in five new locations since 1985. It may also be present in unsurveyed areas of suitable habitat in western Manitoba and possibly eastern Saskatchewan.

Occurrence MB

Status History

Designated Special Concern in April 1985. Status re-examined and designated Not at Risk in November 2003. Last assessment based on an update status report.

Fourhorn Sculpin ***Myoxocephalus quadricornis*** **Data Deficient**
Freshwater form

Assessment Criteria Not applicable

Reason for Designation

There is a lack of necessary data to evaluate the status of this species, combined with uncertainty regarding taxonomic status.

Occurrence NL NT NU

Status History

Designated Special Concern in April 1989. Species considered in November 2003 and moved to the Data Deficient category. Last assessment based on an update status report.

Arthropods

Sand-verbena Moth ***Copablepharon fuscum*** **Endangered**

Assessment Criteria B1ab(ii,iii,iv,v)+2ab(ii,iii,iv,v)

Reason for Designation

The global population of this moth is very small and occurs in a very restricted range. The Canadian population, occurring at only three small sites, is even smaller and more restricted. The moth and its hostplant are habitat specialists dependent on coastal dunes, a rare habitat along the West Coast. This habitat has undergone extensive losses to stabilization of open dunes (including the introduction of invasive plant species), development, and recreational use. The hostplant and therefore the moth are facing the threat of continuing declines due to the loss and degradation of coastal dunes.

Occurrence BC

Status History

Designated Endangered in November 2003. Assessment based on a new status report.

Dakota Skipper ***Hesperia dacotae*** **Threatened**

Assessment Criteria Met criteria for Endangered, B2ab(iii), but was designated Threatened, because it is not at imminent risk of extirpation.

Reason for Designation

This butterfly is dependent on native tall-grass and mixed-grass prairie, a habitat that has suffered enormous historic losses, and the butterfly's populations have likely undergone similar declines. Current remnants of native prairie are generally not highly threatened as they are mostly unsuitable for agriculture but some habitat loss and fragmentation continue. The butterfly is very sensitive to conversion of prairie remnants to cropland, spring and summer haying, heavy grazing, controlled burns and increased pressures to drain natural sites. Although the current population of this butterfly numbers 28,500 - 40,500 individuals, these occur in only three or four disjunct populations. The long-term persistence of the butterfly is dependent on appropriate management of its habitat, most of which is privately owned.

Occurrence MB SK

Status History

Designated Threatened in November 2003. Assessment based on a new status report.

Poweshiek Skipperling ***Oarisma poweshiek*** **Threatened**

Assessment Criteria D2

Reason for Designation

This species occurs in Canada in a very small restricted area at 15 locations in a single metapopulation which is an isolated disjunct, with the closest population in the United Stated being about 100 km to the south. In Canada, the species is dependent on native tall-grass prairie, a habitat that has suffered enormous losses in the past, and its populations have likely undergone similar declines. Although remnant prairie habitat that supports the butterfly is unsuitable for agriculture and most of it is protected in a prairie reserve, past fire management to maintain prairie vegetation has been detrimental to the butterfly. Most of the occupied habitat is protected, but even with appropriate management, its range is so small that the butterfly is vulnerable to catastrophe.

Occurrence MB

Status History

Designated Threatened in November 2003. Assessment based on a new status report.

Molluscs

Round Pigtoe ***Pleurobema sintoxia*** **Endangered**

Assessment Criteria A2ace; B2ab(i,ii,iii,iv)

Reason for Designation

Species limited to a small area of occupancy in the Lake St.Clair and three watersheds in southern Ontario with continuing declines in habitat area, extent and quality. Threats include urban, industrial and agricultural development and irreversible impacts from zebra mussels in Lake St. Clair, with potential threats from introduction of zebra mussels in impoundments in the Sydenham River.

Occurrence ON

Status History

Designated Endangered in May 2004. Assessment based on a new status report.

Rocky Mountain Ridged Mussel ***Gonidea angulata*** **Special Concern**

Assessment Criteria Not applicable

Reason for Designation
The distribution of this species is limited to southern British Columbia in the Okanagan and Kootenay River systems. This species has likely been impacted by the damming of the Kootenay, Columbia and Okanagan Rivers and the channelization of the Okanagan River and resulted in loss or alteration of the mussel's habitat quality and extent.

Occurrence BC

Status History
Designated Special Concern in November 2003. Assessment based on a new status report.

Yellow Lampmussel ***Lampsilis cariosa*** **Special Concern**

Assessment Criteria Not applicable

Reason for Designation
Populations quite large and apparently stable in Canada but found only in Sydney River, Nova Scotia and Saint John River watershed, New Brunswick. Threats are currently very limited but there are long-term concerns related to the potential for introduction of Zebra mussels into the Saint John River, and maintaining habitat quality of the sole population in the Sydney River.

Occurrence NB NS

Status History
Designated Special Concern in May 2004. Assessment based on a new status report.

Spike-lip Crater ***Appalachina sayana*** **Not at Risk**

Assessment Criteria Not applicable

Reason for Designation
This species is common and widespread in Ontario, Quebec and New Brunswick, although apparently declining in Nova Scotia. Three records exist for Nova Scotia and it may be rare there; however there is not enough information to confirm its status.

Occurrence NB NS ON QC

Status History
Designated Not at Risk in November 2003. Assessment based on a new status report.

Evening Fieldslug ***Deroceras hesperium*** **Data Deficient**

Assessment Criteria Not applicable

Reason for Designation
The species was last found at a single site in Comox, British Columbia in 1887 but the site has not been sampled since. Identification is difficult and is based on internal anatomy, hence requiring killing and dissection. Very recent studies suggest that taxonomy and eligibility of the species need to be re-examined.

Occurrence BC

Status History
Species considered in November 2003 and placed in the Data Deficient category. Assessment based on a new status report.

Squat Duskysnail ***Lyogyrus granum*** **Data Deficient**

Assessment Criteria Not applicable

Reason for Designation
This species has been reported from 2 sites in New Brunswick and 11 in Nova Scotia, however, some surveys have been conducted and available information is insufficient to determine the current distribution and abundance of the species in either province.

Occurrence NB NS

Status History
Species considered in November 2003 and placed in the Data Deficient category. Assessment based on a new status report.

Vascular Plants

Bog Bird's-foot Trefoil ***Lotus pinnatus*** **Endangered**

Assessment Criteria B1ab(ii,iii,v)+2ab(ii,iii,v); C1

Reason for Designation

Few small fragmented populations that are geographically restricted and found within wetland meadows of limited occurrence and considerably disjunct from the main range of the species in the Northwestern United States. Populations are at risk from continued habitat loss and encroachment of invasive species and from recreational off-road vehicular activities with the likelihood of significant losses due to planned commercial development of habitat supporting the only sizeable remaining population.

Occurrence BC

Status History

Designated Endangered in May 2004. Assessment based on a new status report.

Butternut ***Juglans cinerea*** **Endangered**

Assessment Criteria A3e+4e

Reason for Designation

A widespread tree found as single trees or small groups in deciduous and mixed forests of southern Ontario, Quebec, and New Brunswick. Butternut canker, which has caused high rates of infection and mortality in the United States, has been detected in all three provinces. High rates of infection and mortality have been observed in parts of Ontario and are predicted for the rest of the Canadian population.

Occurrence NB ON QC

Status History

Designated Endangered in November 2003. Assessment based on a new status report.

Dwarf Sandwort ***Minuartia pusilla*** **Endangered**

Assessment Criteria D1

Reason for Designation

An annual ephemeral herb present at a single very small vernal seepage site along a rocky maritime headland in southern Vancouver Island highly disjunct from the nearest populations in southern Washington State. The maximum population size documented totals 20 plants with numbers likely fluctuating depending on precipitation patterns. Risks to the plants arise from the susceptibility of the single small population to stochastic events and on-going disturbance of the habitat by gulls, trampling by boaters and potentially from encroaching invasive plants.

Occurrence BC

Status History

Designated Endangered in May 2004. Assessment based on a new status report.

Dwarf Woolly-heads ***Psilocarphus brevissimus*** **Endangered**

Assessment Criteria B1ac(iv)+2ac(iv)

Reason for Designation

An annual herb present at only three sites at the northern edge of its range within very small vernal pool habitats of restricted occurrence. It is subject to extreme population fluctuations as a result of seasonal variance in precipitation. The species occurs on private lands potentially subject to human disturbances from ATV recreational use, roadside weed control and other forms of land use allowed on Agricultural Land Reserve properties.

Occurrence BC
Status History
Designated Endangered in November 2003. Assessment based on a new status report.

Pink Sand-verbena ***Abronia umbellate*** **Endangered**
Assessment Criteria B1ab(ii,iii)+2ab(ii,iii); C2a(i,ii); D1
Reason for Designation
An herb of maritime beach habitats last seen at a single site along the west coast of Vancouver Island with losses of two historic populations. The site of the last documented population is greatly disjunct from other small populations in Oregon. The species is found, characteristically, in low numbers and tends to persist in the seed-bed of its beach and foredune habitats, sporadically producing flowering plants. The species was last recorded in 2001 with only several plants present. It is assumed that the species may still persist as dormant seeds and may produce reproductive plants at some future date. The expansion of exotic beach grasses has reduced the quality and availability of its upper beach and foredune habitats at a number of sites within its historic range.
Occurrence BC
Status History
Designated Endangered in May 2004. Assessment based on a new status report.

Rosy Owl-clover ***Orthocarpus bracteosus*** **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii); C2a(i,ii); D1
Reason for Designation
An annual herb of vernal pools and damp depressions present at a single remaining location where population size fluctuates widely with low numbers that may be fewer than 100 plants a year. Expansion is limited due to lack of suitable habitats and apparent low dispersal abilities. The population is at risk from spread of nearby invasive exotic plants, from trampling due to hiker traffic and local maintenance activities related to the nearby communications site and consequences of possible oil spills occurring in the busy shipping lanes surrounding the island site.
Occurrence BC
Status History
Designated Endangered in May 2004. Assessment based on a new status report.

Slender Collomia ***Collomia tenella*** **Endangered**
Assessment Criteria B1ac(iv)+2ac(iv); D1
Reason for Designation
An annual herb present at a single sandy site near Princeton, British Columbia. The population fluctuates widely from year to year. At risk to stochastic events, roadside development, sand removal, and invasion by alien species.
Occurrence BC
Status History
Designated Endangered in November 2003. Assessment based on a new status report.

Small-flowered Tonella ***Tonella tenella*** **Endangered**
Assessment Criteria B1ab(iii)+2ab(iii); C2a(i,ii)
Reason for Designation
A small annual herb known from a single site in the Gulf Islands, British Columbia. At risk to potential development, alien species and fire management.
Occurrence BC
Status History
Designated Endangered in November 2003. Assessment based on a new status report.

Stoloniferous Pussytoes ***Antennaria flagellaris*** **Endangered**

Assessment Criteria B1ab(ii,iii,v)+2ab(ii,iii,v)

Reason for Designation

A short-lived perennial plant present at only three geographically restricted localities occupying very small areas of specialized habitat of ephemerally moist seepage sites on private lands. It is at greatest risk from ATV use that currently is evident in close proximity to the populations. It may also be impacted by changes in ground water hydrology and surface impacts from increased development activities in the area such as the proposed production of coalbed methane.

Occurrence BC

Status History

Designated Endangered in May 2004. Assessment based on a new status report.

Branched Bartonia ***Bartonia paniculata*** **ssp.** ***Paniculata*** **Threatened**

Assessment Criteria Met criteria for Endangered, B1ab(iii)+2ab(iii), but was designated as Threatened, B1ab(iii)+2ab(iii); C2a(i), because it is not at imminent risk of extirpation.

Reason for Designation

A cryptic wetland annual species of Atlantic Coastal Plain affinity, highly restricted both geographically and ecologically and present at only six of seven documented sites. Ontario populations are disjunct by about 600 km from the main range of the species with little potential for a rescue effect. The greatest potential risk is from the invasive shrub, glossy buckthorn, at two localities.

Occurrence ON

Status History

Designated Special Concern in April 1992. Status re-examined and designated Threatened in November 2003. Last assessment based on an update status report.

Dwarf Hackberry ***Celtis tenuifolia*** **Threatened**

Assessment Criteria Met criteria for Endangered, B1ab(iii,v)+2ab(iii,v), but was designated Threatened, B1ab(iii,v)+2ab(iii,v); C2a(i); D1+2, because it is not at imminent risk of extirpation.

Reason for Designation

A shrub of dry sandy or calcareous alvar woodlands habitats found at only six disjunct and fragmented sites adjacent to the Great Lakes. Fewer than 1000 plants have been documented. Threats include potential loss of habitat due to quarrying operations and sand pit expansion in eastern Ontario sites and significant losses in some years due to beetle infestations.

Occurrence ON

Status History

Designated Special Concern in April 1985. Status re-examined and designated Threatened in November 2003. Last assessment based on an update status report.

Gulf of St. Lawrence Aster ***Symphyotrichum laurentia*** **Threatened**

Assessment Criteria D2

Reason for Designation

An annual halophyte of maritime littoral habitats endemic to the Gulf of St. Lawrence. It is found at nearly 30 extant sites with some very large populations, especially on the Magdalen Islands, but has a very small total area of occupancy of much less than five square kilometres. Many of the populations are subject to natural fluctuations in size and at times suffer important losses due to severe storm events. On-going impacts also exist from human recreational activities and losses of habitat due to development activities.

Occurrence QC NB PE

Status History

Designated Special Concern in April 1989. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Victorin's Gentian ***Gentianopsis procera*** **ssp.** ***macounii*** **var.** ***victorinii*** **Threatened**

Assessment Criteria D2

Reason for Designation
A geographically highly restricted and short-lived annual or biennial that is endemic to the freshwater or slightly brackish shoreline areas of the St. Lawrence River estuary in Quebec. It is present at 28 extant sites but in very small localized habitats where it is at risk from a wide range of impacts. These include habitat disruption by ATVs, shoreline in-filling, mowing of vegetation, picking of flowers and potentially from oil spills.

Occurrence QC

Status History
Designated Special Concern in April 1987. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Eastern Lilaeopsis ***Lilaeopsis chinensis*** **Special Concern**

Assessment Criteria Not applicable

Reason for Designation
Small perennial herb reproducing both by seed and extensively by vegetative spread. It is geographically highly restricted and present in Canada at only three estuaries in Nova Scotia. The area of occupancy is very small but the population is large. No declines of significance have been documented over the last 15 years. It does not appear to have any imminent threats, however, future shoreline development or degradation could destroy extant populations.

Occurrence NS

Status History
Designated Special Concern in April 1987 and in May 2004. Last assessment based on an update status report.

New Jersey Rush ***Juncus caesariensis*** **Special Concern**

Assessment Criteria Met criteria for Threatened, D2, but designated as Special Concern because there are about 25 extant occurrences and likely more to be found; the species is not likely to become highly endangered since there are limited risks and the species shows some adaptability to habitat disturbance.

Reason for Designation
The species is a globally rare plant found along the periphery of 25 bogs and fens in a geographically restricted area of southeastern Cape Breton Island, Nova Scotia. The Canadian population is estimated at 5000 -10,000 plants that comprise a large proportion of the global population. The Canadian plants are widely disjunct from sites along the U.S. Atlantic seaboard where the species is also quite rare. It is sensitive to activities that alter the hydrological regime of its habitat such as logging, road construction and in-filling.

Occurrence NS

Status History
Designated Special Concern in April 1992. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Victorin's Water-hemlock ***Cicuta maculata* var. *victorinii*** **Special Concern**

Assessment Criteria Not applicable

Reason for Designation
A geographically highly restricted perennial that is endemic to the freshwater or slightly brackish shoreline areas of the St. Lawrence River estuary in Quebec. It is present at about 33 localities but in very small localized habitats where it is at risk from a wide range of impacts. These impacts include: actual destruction of plants due to ATV traffic and human trampling, and mowing of shoreline vegetation; losses of suitable potential shoreline habitat also occurs through shoreline in-filling and development and potential loss of plants may occur due to confusion with the

common variant of the species that is considered a noxious weed. Oil spills may also pose a potential risk.

Occurrence QC

Status History
Designated Special Concern in April 1987. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Mosses

Porsild's Bryum ***Mielichhoferia macrocarpa*** **Threatened**

Assessment Criteria Met criteria for Endangered, C2a(i), but was designated Threatened, B2ab(ii,iii,v); C2a(i); D1+2, because the species is not at imminent risk of extirpation.

Reason for Designation
A rare moss with a severely fragmented distribution of 10 confirmed locations in Canada restricted to 5 general areas. The species grows in mainly mountainous areas on wet calcareous cliffs, presence of constant seepage and winter desiccation. Direct threats to populations include natural and human-caused events that destabilize the rock cliff habitat. There has been a recent a decline in habitat quality at the two most abundant locations and substantial loss of mature individual plants at one of these. Only one locality is protected. There is uncertainty in status of northern Canadian populations.

Occurrence AB BC NL NU
Status History
Designated Threatened in November 2003. Assessment based on a new status report.

Columbian Carpet Moss ***Bryoerythrophyllum columbianum*** **Special Concern**

Assessment Criteria Not applicable

Reason for Designation
This is a western North American endemic species. It is a small perennial species and in Canada has a restricted distribution in the shrub-steppe in semi-arid regions of British Columbia where recent surveys have confirmed its presence from 11 sites. The species is never abundant in sites where it is found and extensive surveys have provided few new locations. At least one population is believed to have been lost to cultivation (vineyard) or to stochastic events. Threats include agriculture (especially vineyards), impact by grazing animals, urban development, road improvements, and human recreational impacts. Based on known occurrences, the species appears to have a very restricted distribution. However the species is patchily distributed at low densities in large habitats not all of which have been censused.

Occurrence BC
Status History
Designated Special Concern in May 2004. Assessment based on a new status report.

Twisted Oak Moss ***Syntrichia laevipila*** **Special Concern**

Assessment Criteria Met criteria for Threatened, D2, but designated as Special Concern because of the high potential numbers of Garry Oak host.

Reason for Designation
This moss is a small species that occurs from British Columbia and Washington southward to California. The Canadian populations are at the northern limits of their range in western North America, and in Canada the species has a restricted distribution where it occurs in the area of south-eastern Vancouver Island and the Gulf Islands. The species is known from 25 sites where it restricted to the bark of trees, in particular Garry oaks. This species is never dominant where it grows, nor is it frequent in large oak stands. Many of the known populations are in protected

areas. The major threat to the species is the disappearance of mature Garry oaks, which would result in the extirpation of most populations of this species.

Occurrence BC

Status History

Designated Special Concern in May 2004. Assessment based on a new status report.

Lichens

Flooded Jellyskin ***Leptogium rivulare*** **Threatened**

Assessment Criteria D2

Reason for Designation

This is a globally rare species currently known in Canada from only 4 locations, all in Ontario and Manitoba. The species has very restricted habitat requirements, found primarily at the margins of seasonal (vernal) pools, where it grows on rocks and at the base of living deciduous trees between the seasonal high and low water marks. It is vulnerable to changes in normal patterns of annual flooding, as well as to death of host trees. Major threats to the largest populations include urban development and recreational activity.

Occurrence MB ON

Status History

Designated Threatened in May 2004. Assessment based on a new status report.

Deferred Reports

November 2003

Following discussion by COSEWIC, the report on Stoloniferous Pussytoes, *Antennaria flagellaris*, and the update report on Bathurst Aster, *Symphyotrichum subulatum*, (Bathurst population) were withdrawn to allow incorporation of additional information.

May 2004

The reports on Hill's Thistle (*Cirsium hillii*), Rusty Cord-moss (*Entosthodon rubiginosus*), Alkaline Wing-nerved Moss (*Pterygoneurum kozlovii*) and Provancher's Fleabane (*Erigeron philadelphicus* ssp. *provancheri*) were deferred to allow incorporation of additional information.

APPENDIX VIII
(enclosed)

CANADIAN SPECIES AT RISK

May 2004

Aussi disponible en français

COSEWIC
COMMITTEE ON THE STATUS OF
ENDANGERED WILDLIFE
IN CANADA

COSEPAC
COMITÉ SUR LA SITUATION
DES ESPÈCES EN PÉRIL
AU CANADA

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Cover Illustration: Peary Caribou, Tuktu, *Rangifer tarandus pearyi*, designated Endangered by COSEWIC in May 2004. Drawing by Shelly O'Gorman, Iqaluit, Nunavut.

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COSEWIC Status Reports are available from the *Species at Rist Act* Public Registry
http://www.sararegistry.gc.ca

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ABOUT COSEWIC

COSEWIC MANDATE

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the national status of wild species, subspecies, varieties, or other designatable units that are considered to be at risk in Canada. Designations are made on native species including the following taxonomic groups: mammals, birds, reptiles, amphibians, fishes, arthropods, molluscs, vascular plants, mosses, and lichens.

COSEWIC MEMBERSHIP

COSEWIC comprises members from each provincial and territorial government wildlife agency, four federal agencies (Canadian Wildlife Service, Parks Canada Agency, Department of Fisheries and Oceans, and the Federal Biodiversity Information Partnership, chaired by the Canadian Museum of Nature), three non-government members and the co-chairs of the species specialist and the Aboriginal Traditional Knowledge subcommittees. The Committee meets to consider status reports on candidate species.

DEFINITIONS

The following definitions were reviewed by COSEWIC in May 2004:

Wildlife species	a species, subspecies, variety, or geographically or genetically distinct population of animal, plant or other organism, other than a bacterium or virus, that is wild by nature and it is either native to Canada or has extended its range into Canada without human intervention and has been present in Canada for at least 50 years.
Extinct (X)	A wildlife species that no longer exists.
Extirpated (XT)	A wildlife species no longer existing in the wild in Canada, but occurring elsewhere.
Endangered (E)	A wildlife species facing imminent extirpation or extinction.
Threatened (T)	A wildlife species likely to become endangered if limiting factors are not reversed.
Special Concern (SC)*	A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
Not at Risk (NAR)**	A species that has been evaluated and found to be not at risk of extinction given the current circumstances.
Data Deficient (DD)***	A wildlife species for which there is inadequate information to make a direct, or indirect, assessment of its risk of extinction.

* Formerly described as "Vulnerable" from 1990 to 1999, or "Rare" prior to 1990.

** Formerly described as "Not In Any Category", or "No Designation Required."

*** Formerly described as "Indeterminate" from 1994 to 1999 or "ISIBD" (insufficient scientific information on which to base a designation) prior to 1994.

SUMMARY TABLES

Species designated in the "risk" and the Extinct categories, and the Not at Risk and Data Deficient categories

Table 1. Summary of COSEWIC's assessment results for the "risk" categories (Extirpated, Endangered, Threatened and Special Concern) (444 species) and for the Extinct category (12 species). The results include the May 2004 meeting.

TAXON	EXTINCT	EXTIRPATED	ENDANGERED	THREATENED	SPECIAL CONCERN	TOTALS
Mammals	2	4	20	14	26	66
Birds	3	2	23	10	22	60
Reptiles	0	4	7	12	9	32
Amphibians	0	1	6	5	7	19
Fishes	5	2	21	22	29	79
Arthropods	0	3	6	5	2	16
Molluscs	1	2	12	2	4	21
Vascular Plants	0	2	67	41	35	145
Mosses	1	1	5	2	2	11
Lichens	0	0	2	1	4	7
Totals	**12**	**21**	**169**	**114**	**140**	**456**

Table 2. Summary of COSEWIC's assessment results for the Not at Risk category. The results include the May 2004 meeting.

TAXON	NOT AT RISK
Mammals	44
Birds	35
Reptiles	5
Amphibians	14
Fishes	35
Arthropods	0
Molluscs	2
Vascular Plants	16
Mosses	0
Lichens	0
Totals	**151**

Table 3. Summary of COSEWIC's assessment results for the Data Deficient category. The results include the May 2004 meeting.

TAXON	DATA DEFICIENT
Mammals	10
Birds	2
Reptiles	2
Amphibians	0
Fishes	9
Arthropods	0
Molluscs	4
Vascular Plants	4
Mosses	0
Lichens	2
Totals	**33**

Results from the May 2004 COSEWIC meeting

Table 4. May 2004 results by category and taxon.

TAXON	EXTINCT	EXTIRPATED	ENDANGERED	THREATENED	SPECIAL CONCERN	NOT AT RISK	DATA DEFICIENT	TOTALS
Mammals			3	3	5	1	1	13
Birds			1	2				3
Reptiles			2	1				3
Amphibians			1					1
Fishes			1					1
Arthropods								0
Molluscs			1		1			2
Vascular Plants			5	2	3			10
Mosses					2			2
Lichens				1				1
Totals	0	0	14	9	11	1	1	36

Table 5. May 2004 results by category and type of change.

TYPE OF CHANGE	EXTINCT	EXTIRPATED	ENDANGERED	THREATENED	SPECIAL CONCERN	NOT AT RISK	DATA DEFICIENT	TOTALS
New			8	4	3			15
In a higher risk category ↑			4	2	1			7
In a lower risk category ↓				1				1
No Change ↔			1	1	5	1		8
Changed ☼							1	1
Reassigned ↺			1	1	2			4
No longer at risk √								0
Totals	0	0	14	9	11	1	1	36

Explanation of status change symbols for reassessed species

↑ Species placed in a higher risk category after reassessment on the date shown.
↓ Species placed in a lower risk category after reassessment on the date shown.
↔ Species stays in the same category after reassessment on the date shown.
☼ Species moved to the Data Deficient category from a risk category, or to a risk category from the Data Deficient category on the date shown.
↺ Species that has been assigned to a different designatable unit than previously on the date shown.
√ Species moved to the Not at Risk category from a risk category on the date shown.
(*no symbol*) New species examined on the date shown.

COSEWIC ASSESSMENT RESULTS

The tables that follow (Tables 6-9) are organized by status category and then by taxonomic group. For each species, the information provided includes the common name, scientific name, population name, and range of occurrence in Canada (by province, territory or ocean). For birds, range of occurrence includes the Canadian breeding and wintering distribution. The most recent date of assessment by COSEWIC is shown. The symbols on the left provide information on the type of status report used as the basis for reassessment for species evaluated against quantitative criteria (see below), and the symbols on the right provide information on the outcome of status reassessments (see explanation of symbols on page three).

The first COSEWIC "Endangered Species List" was issued in 1978. In 1990, it was decided that all species considered by COSEWIC should be included in this document even if the species were in the Not at Risk or Data Deficient categories. Therefore, this document is divided into four sections. The first section (Table 6) includes species assessed and designated as Extinct. The second section (Table 7) includes species assessed and designated as Extirpated, Endangered, Threatened or Special Concern. The third section (Table 8) includes species assessed and found to be in the Not at Risk category. The fourth section (Table 9) includes species considered by COSEWIC and placed in the Data Deficient category because of insufficient scientific information.

Evaluation with COSEWIC's quantitative criteria

COSEWIC has been using quantitative criteria to assess species' risk of extinction since October 1999. These criteria were adapted from the criteria used by the World Conservation Union (IUCN).

Explanation of type of status report symbols for species evaluated using quantitative criteria

△ or △' Assessment based on a new status report or an update status report. A plus sign (+) indicates the report has an addendum or that the report has been modified.

⧋ or ⧋' Species re-assessed using an existing status report. A plus sign (+) indicates the report has an addendum or that the report has been modified.

Geographical occurrence abbreviations

AB	Alberta	NS	Nova Scotia	QC	Québec
BC	British Columbia	NT	Northwest Territories	SK	Saskatchewan
MB	Manitoba	NU	Nunavut	YT	Yukon Territory
NB	New Brunswick	ON	Ontario		
NL	Newfoundland and Labrador	PE	Prince Edward Island		

Table 6. Species assessed and designated Extinct, with range of occurrence (by province, territory or ocean) and date of last assessment. The historical range of occurrence and the approximate date of disappearance are shown (12 species).

EXTINCT CATEGORY (12)

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Historical Range of Occurrence	Extinction Date	Assessment Date
Mammals (2)						
△ ‹ ›	Caribou *dawsoni* subspecies	*Rangifer tarandus dawsoni*		BC	1920s	May 2000
⏢ ‹ ›	Mink, Sea	*Mustela macrodon*		NB NS Atlantic Ocean	1894	May 2000
Birds (3)						
⏢ ‹ ›	Auk, Great	*Pinguinus impennis*		QC NB NS NL	1844	May 2000
⏢ ‹ ›	Duck, Labrador	*Camptorhynchus labradorius*		QC NB NS NL	1875	May 2000
⏢ ‹ ›	Pigeon, Passenger	*Ectopistes migratorius*		SK MB ON QC NB NS PE	1914	May 2000
Reptiles (0)						
Amphibians (0)						
Fishes (5)						
⏢ ‹ ›	Cisco, Deepwater	*Coregonus johannae*		ON	1952	May 2000
⏢ ‹ ›	Dace, Banff Longnose	*Rhinichthys cataractae smithi*		AB	1986	May 2000
⏢ ‹ ›	Stickleback, Benthic Hadley Lake	*Gasterosteus* sp.		BC	1999	May 2000
⏢ ‹ ›	Stickleback, Limnetic Hadley Lake	*Gasterosteus* sp.		BC	1999	May 2000
⏢ ‹ ›	Walleye, Blue	*Stizostedion vitreum glaucum*		ON	1965	May 2000
Arthropods (0)						
Molluscs (1)						
⏢ ‹ ›	Limpet, Eelgrass	*Lottia alveus alveus*		QC NS NL	1929	May 2000
Vascular Plants (0)						
Mosses (1)						
△	Moss, Macoun's Shining	*Neomacounia nitida*		ON	not observed since 1864	Nov 2002
Lichens (0)						

Table 7. Species assessed and designated in a "risk category" (Extirpated, Endangered, Threatened or Special Concern), with range of occurrence (by province, territory or ocean) and date of assessment. For Extirpated species, the historical range of occurrence and the approximate date of disappearance from Canada are shown (444 species).

EXTIRPATED CATEGORY (21)

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Historical Range of Occurrence	Extinction Date	Assessment Date
Mammals (4)						
△ ↔	Bear, Grizzly	*Ursus arctos*	Prairie population	AB SK MB	1880s	May 2002
⏃ ↔	Ferret, Black-footed	*Mustela nigripes*		AB SK MB	1974	May 2000
⏃ ↔	Walrus, Atlantic	*Odobenus rosmarus rosmarus*	Northwest Atlantic population	Atlantic Ocean	mid 19th century	May 2000
⏃ ↔	Whale, Grey	*Eschrichtius robustus*	Atlantic population	Atlantic Ocean	before end of 1800s	May 2000
Birds (2)						
⏃ ↔	Prairie-Chicken, Greater	*Tympanuchus cupido*		AB SK MB ON	last reported in 1987 in Saskatchewan	May 2000
⏃ ↔	Sage-Grouse *phaios* subspecies, Greater	*Centrocercus urophasianus phaios*		BC	not observed since 1960s	May 2000
Reptiles (4)						
△	Gophersnake, Pacific	*Pituophis catenifer catenifer*		BC	not observed since 1957	May 2002
⏃ ↔	Lizard, Pigmy Short-horned	*Phrynosoma douglasii*	British Columbia population	BC	last reported in 1898, near Osoyoos, BC	May 2000
△	Rattlesnake, Timber	*Crotalus horridus*		ON	1941	May 2001
△	Turtle, Pacific Pond	*Actinemys marmorata*		BC	not observed since 1959	May 2002
Amphibians (1)						
△	Salamander, Tiger	*Ambystoma tigrinum*	Great Lakes population	ON	1915	Nov 2001
Fishes (2)						
⏃ ↔	Chub, Gravel	*Erimystax x-punctatus*		ON	last reported in 1958, Thames River drainage	May 2000
⏃ ↔	Paddlefish	*Polyodon spathula*		ON	1917	May 2000
Arthropods (3)						
⏃ ↔	Blue, Karner	*Lycaeides melissa samuelis*		ON	1991	May 2000
⏃ ↔	Elfin, Frosted	*Callophrys [Incisalia] irus*		ON	1988	May 2000
⏃ ↔	Marble, Island	*Euchloe ausonides*		BC	before 1910	May 2000
Molluscs (2)						
△	Snail, Puget Oregonian	*Cryptomastix devia*		BC	not observed since 1905	Nov 2002
⏃ ↔	Wedgemussel, Dwarf	*Alasmidonta heterodon*		NB	1968	May 2000

EXTIRPATED CATEGORY (21) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Historical Range of Occurrence	Extinction Date	Assessment Date
Vascular Plants (2)						
⏃ ↔	Spring Blue-eyed Mary	*Collinsia verna*		ON	not observed since 1954	May 2000
⏃ ↔	Tick-trefoil, Illinois	*Desmodium illinoense*		ON	not observed since 1888	May 2000
Mosses (1)						
△	Moss, Incurved Grizzled	*Ptychomitrium incurvum*		ON	1828	Nov 2002
Lichens (0)						

ENDANGERED CATEGORY (169)

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Mammals (20)					
△ ↻	Badger *jacksoni* subspecies, American	*Taxidea taxus jacksoni*		ON	May 2000
△ ↻	Badger *jeffersonii* subspecies, American	*Taxidea taxus jeffersonii*		BC	May 2000
△ ↻	Caribou, Peary	*Rangifer tarandus pearyi*		NT NU	May 2004
△ ↔	Caribou, Woodland	*Rangifer tarandus caribou*	Atlantic-Gaspésie population	QC	May 2002
⚠ ↔	Fox, Swift	*Vulpes velox*		AB SK	May 2000
⚠* ↔	Marmot, Vancouver Island	*Marmota vancouverensis*		BC	May 2000
⚠ ↔	Marten, Newfoundland	*Martes americana atrata*		NL	May 2000
△ ↑	Mole, Townsend's	*Scapanus townsendii*		BC	May 2003
△ ↑	Whale, Beluga	*Delphinapterus leucas*	Eastern Hudson Bay population	NU QC Arctic Ocean Atlantic Ocean	May 2004
△ ↔	Whale, Beluga	*Delphinapterus leucas*	Ungava Bay population	QC Arctic Ocean Atlantic Ocean	May 2004
△ ↻	Whale, Blue	*Balaenoptera musculus*	Atlantic population	Atlantic Ocean	May 2002
△ ↻	Whale, Blue	*Balaenoptera musculus*	Pacific population	Pacific Ocean	May 2002
	Whale, Bowhead	*Balaena mysticetus*	Eastern Arctic population	NU Arctic Ocean	Apr 1980
	Whale, Bowhead	*Balaena mysticetus*	Western Arctic population	YT NT NU Arctic Ocean	Apr 1986
⚠* ↻	Whale, Killer	*Orcinus orca*	Northeast Pacific southern resident population	Pacific Ocean	Nov 2001
△ ↻	Whale, North Atlantic Right	*Eubalaena glacialis*		Atlantic Ocean	May 2003
↔	Whale, North Pacific Right	*Eubalaena japonica*		Pacific Ocean	Apr 1990
⚠* ↑	Whale, Northern Bottlenose	*Hyperoodon ampullatus*	Scotian Shelf population	Atlantic Ocean	Nov 2002
△	Whale, Sei	*Balaenoptera borealis*	Pacific population	Pacific Ocean	May 2003
△ ↔	Wolverine	*Gulo gulo*	Eastern population	QC NL	May 2003
Birds (23)					
△+ ↔	Bobwhite, Northern	*Colinus virginianus*		ON	Nov 2003
△ ↑	Chat *auricollis* subspecies, Yellow-breasted	*Icteria virens auricollis*	British Columbia population	BC	Nov 2000
△ ↔	Crane, Whooping	*Grus americana*		NT AB	Nov 2000
△	Crossbill *percna* subspecies, Red	*Loxia curvirostra percna*		NL	May 2004
△ ↔	Curlew, Eskimo	*Numenius borealis*		YT NT NU BC AB SK MB ON QC NB NS PE NL	May 2000
△ ↔	Flycatcher, Acadian	*Empidonax virescens*		ON	Nov 2000
△	Lark *strigata* subspecies, Horned	*Eremophila alpestris strigata*		BC	Nov 2003
⚠ ↔	Owl *caurina* subspecies, Spotted	*Strix occidentalis caurina*		BC	May 2000
⚠ ↔	Owl, Barn	*Tyto alba*	Eastern population	ON QC	May 2000
⚠ ↔	Owl, Burrowing	*Athene cunicularia*		BC AB SK MB	May 2000
△ ↻	Plover *circumcinctus* subspecies, Piping	*Charadrius melodus circumcinctus*		AB SK MB ON	May 2001
△ ↻	Plover *melodus* subspecies, Piping	*Charadrius melodus melodus*		QC NB NS PE NL	May 2001
△ ↔	Plover, Mountain	*Charadrius montanus*		AB SK	Nov 2000
△ ↔	Rail, King	*Rallus elegans*		ON	Nov 2000
⚠ ↔	Sage-Grouse *urophasianus* subspecies, Greater	*Centrocercus urophasianus urophasianus*		AB SK	May 2000

ENDANGERED CATEGORY (169) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Birds (23) *(contined)*					
△ ↻	Screech-Owl *macfarlanei* subspecies, Western	*Megascops kennicottii macfarlanei*		BC	May 2002
△ ↔	Shrike *migrans* subspecies, Loggerhead	*Lanius ludovicianus migrans*		MB ON QC	Nov 2000
△ ↔	Sparrow, Henslow's	*Ammodramus henslowii*		ON	Nov 2000
~~△~~ ↔	Tern, Roseate	*Sterna dougallii*		QC NB NS	Oct 1999
△ ↔	Thrasher, Sage	*Oreoscoptes montanus*		BC AB SK	Nov 2000
~~△~~ ↔	Warbler, Kirtland's	*Dendroica kirtlandii*		ON	May 2000
△ ↔	Warbler, Prothonotary	*Protonotaria citrea*		ON	May 2000
△ ↑	Woodpecker, White-headed	*Picoides albolarvatus*		BC	Nov 2000
Reptiles (7)					
△	Nightsnake	*Hypsiglena torquata*		BC	May 2001
△ ↔	Racer, Blue	*Coluber constrictor foxii*		ON	May 2002
△ ↔	Seaturtle, Leatherback	*Dermochelys coriacea*		Pacific Ocean Atlantic Ocean	May 2001
△ ↑	Skink, Prairie	*Eumeces septentrionalis*		MB	May 2004
~~△~~ ↔	Snake, Sharp-tailed	*Contia tenuis*		BC	Oct 1999
△ ↑	Turtle, Spotted	*Clemmys guttata*		ON QC	May 2004
	Watersnake, Lake Erie	*Nerodia sipedon insularum*		ON	Apr 1991
Amphibians (6)					
△ ↔	Frog, Northern Cricket	*Acris crepitans*		ON	May 2001
~~△~~ ↔	Frog, Northern Leopard	*Rana pipiens*	Southern Mountain population	BC	May 2000
△ ↔	Frog, Oregon Spotted	*Rana pretiosa*		BC	May 2000
△	Frog, Rocky Mountain Tailed	*Ascaphus montanus*		BC	May 2000
△ ↑	Salamander, Small-mouthed	*Ambystoma texanum*		ON	May 2004
△	Salamander, Tiger	*Ambystoma tigrinum*	Southern Mountain population	BC	Nov 2001
Fishes (21)					
△ ↻	Cod, Atlantic	*Gadus morhua*	Newfoundland and Labrador population	Atlantic Ocean	May 2003
~~△~~ ↔	Dace, Nooksack	*Rhinichthys* sp.		BC	May 2000
△ ↑	Dace, Speckled	*Rhinichthys osculus*		BC	Nov 2002
~~△~~ ↑	Lamprey, Morrison Creek	*Lampetra richardsoni*		BC	May 2000
~~△~~* ↑	Madtom, Northern	*Noturus stigmosus*		ON	Nov 2002
△	Salmon, Atlantic	*Salmo salar*	Inner Bay of Fundy populations	NB NS Atlantic Ocean	May 2001
△	Salmon, Coho	*Oncorhynchus kisutch*	Interior Fraser population	BC Pacific Ocean	May 2002
△ ↔	Salmon, Sockeye	*Oncorhynchus nerka*	Cultus population	BC Pacific Ocean	May 2003
△ ↔	Salmon, Sockeye	*Oncorhynchus nerka*	Sakinaw population	BC Pacific Ocean	May 2003
△	Shark, Porbeagle	*Lamna nasus*		Atlantic Ocean	May 2004
△ ↑	Shiner, Pugnose	*Notropis anogenus*		ON	Nov 2002
△ ↻	Stickleback, Benthic Enos Lake	*Gasterosteus* sp.		BC	Nov 2002
~~△~~ ↑	Stickleback, Benthic Paxton Lake	*Gasterosteus* sp.		BC	May 2000
~~△~~ ↑	Stickleback, Benthic Vananda Creek	*Gasterosteus* sp.		BC	May 2000
△ ↻	Stickleback, Limnetic Enos Lake	*Gasterosteus* sp.		BC	Nov 2002

ENDANGERED CATEGORY (169) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Fishes (21) *(continued)*					
⏃ ↑	Stickleback, Limnetic Paxton Lake	*Gasterosteus* sp.		BC	May 2000
⏃ ↑	Stickleback, Limnetic Vananda Creek	*Gasterosteus* sp.		BC	May 2000
△ ↑	Sturgeon, White	*Acipenser transmontanus*		BC	Nov 2003
△ ↔	Sucker, Salish	*Catostomus* sp.		BC	Nov 2002
△ ↔	Trout, Aurora	*Salvelinus fontinalis timagamiensis*		ON	May 2000
△ ↔	Whitefish, Atlantic	*Coregonus huntsmani*		NS	Nov 2000
Arthropods (6)					
△	Blue, Island	*Plebejus saepiolus insulanus*		BC	Nov 2000
△	Checkerspot, Taylor's	*Euphydryas editha taylori*		BC	Nov 2000
△	Metalmark, Mormon	*Apodemia mormo*	Southern Mountain population	BC	May 2003
△	Moth, Sand-verbena	*Copablepharon fuscum*		BC	Nov 2003
△	Moth, Yucca	*Tegeticula yuccasella*		AB	May 2002
⏃ ↔	Ringlet, Maritime	*Coenonympha tullia nipisiquit*		QC NB	May 2000
Molluscs (12)					
⏃ ↔	Bean, Rayed	*Villosa fabalis*		ON	May 2000
△	Forestsnail, Oregon	*Allogona townsendiana*		BC	Nov 2002
△	Hickorynut, Round	*Obovaria subrotunda*		ON	May 2003
△	Kidneyshell	*Ptychobranchus fasciolaris*		ON	May 2003
⏃ ↔	Lampmussel, Wavy-rayed	*Lampsilis fasciola*		ON	Oct 1999
△	Mussel, Mudpuppy	*Simpsonaias ambigua*		ON	May 2001
⏃ ↔	Physa, Hotwater	*Physella wrighti*		BC	May 2000
△	Pigtoe, Round	*Pleurobema sintoxia*		ON	May 2004
⏃* ↔	Riffleshell, Northern	*Epioblasma torulosa rangiana*		ON	May 2000
⏃ ↑	Snail, Banff Springs	*Physella johnsoni*		AB	May 2000
△	Snail, Lake Winnipeg Physa	*Physa* sp.		MB	Nov 2002
△	Snuffbox	*Epioblasma triquetra*		ON	May 2001
Vascular Plants (67)					
⏃* ↔	Agalinis, Gattinger's	*Agalinis gattingeri*		ON	May 2001
⏃ ↔	Agalinis, Skinner's	*Agalinis skinneriana*		ON	May 2000
⏃ ↔	Ammannia, Scarlet	*Ammannia robusta*		BC ON	May 2001
⏃ ↔	Avens, Eastern Mountain	*Geum peckii*		NS	May 2000
⏃ ↔	Balsamroot, Deltoid	*Balsamorhiza deltoidea*		BC	May 2000
⏃ ↔	Bluehearts	*Buchnera americana*		ON	May 2000
⏃* ↔	Braya, Long's	*Braya longii*		NL	May 2000
△	Bugbane, Tall	*Actaea elata*		BC	May 2001
△ ↑	Bulrush, Bashful	*Trichophorum planifolium*		ON	May 2000
⏃ ↔	Bush-clover, Slender	*Lespedeza virginica*		ON	May 2000
⏃ ↔	Buttercup, Water-plantain	*Ranunculus alismaefolius* var. *alismaefolius*		BC	May 2000
△	Butternut	*Juglans cinerea*		NB ON QC	Nov 2003
⏃ ↔	Cactus, Eastern Prickly Pear	*Opuntia humifusa*		ON	May 2000
△	Catchfly, Coastal Scouler's	*Silene scouleri* ssp. *grandis*		BC	May 2003
△	Collomia, Slender	*Collomia tenella*		BC	Nov 2003

ENDANGERED CATEGORY (169) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Vascular Plants (67) (*continued*)						
⏃	↔	Coreopsis, Pink	*Coreopsis rosea*		NS	May 2000
⏃	↔	Cryptanthe, Tiny	*Cryptantha minima*		AB SK	May 2000
⏃	↔	Fern, Southern Maidenhair	*Adiantum capillus-veneris*		BC	May 2000
△	↑	Fringed-orchid, Eastern Prairie	*Platanthera leucophaea*		ON	May 2003
△	↔	Fringed-orchid, Western Prairie	*Platanthera praeclara*		MB	May 2000
△	↔	Gentian, White Prairie	*Gentiana alba*		ON	May 2001
⏃	↔	Ginseng, American	*Panax quinquefolius*		ON QC	May 2000
⏃*	↑	Goat's-rue, Virginia	*Tephrosia virginiana*		ON	May 2000
⏃	↔	Goldenrod, Showy	*Solidago speciosa*		ON	May 2000
△		Grass, Forked Three-awned	*Aristida basiramea*		ON QC	Nov 2002
⏃	↔	Lady's-slipper, Small White	*Cypripedium candidum*		MB ON	May 2000
△	↑	Lipocarpha, Small-flowered	*Lipocarpha micrantha*		BC ON	Nov 2002
⏃	↔	Lotus, Seaside Birds-foot	*Lotus formosissimus*		BC	May 2000
⏃	↔	Lousewort, Furbish's	*Pedicularis furbishiae*		NB	May 2000
⏃	↔	Lupine, Prairie	*Lupinus lepidus* var. *lepidus*		BC	May 2000
△		Lupine, Streambank	*Lupinus rivularis*		BC	Nov 2002
⏃	↔	Milkwort, Pink	*Polygala incarnata*		ON	May 2000
⏃	↔	Mountain-mint, Hoary	*Pycnanthemum incanum*		ON	May 2000
⏃	↔	Mulberry, Red	*Morus rubra*		ON	May 2000
⏃	↔	Owl-clover, Bearded	*Triphysaria versicolor* ssp. *versicolor*		BC	May 2000
△		Owl-clover, Rosy	*Orthocarpus bracteosus*		BC	May 2004
⏃*	↑	Paintbrush, Golden	*Castilleja levisecta*		BC	May 2000
⏃	↔	Plantain, Heart-leaved	*Plantago cordata*		ON	May 2000
⏃	↔	Pogonia, Large Whorled	*Isotria verticillata*		ON	May 2000
⏃	↔	Pogonia, Nodding	*Triphora trianthophora*		ON	May 2000
⏃	↔	Pogonia, Small Whorled	*Isotria medeoloides*		ON	May 2000
△		Pussytoes, Stoloniferous	*Antennaria flagellaris*		BC	May 2004
△	↔	Quillwort, Engelmann's	*Isoëtes engelmannii*		ON	May 2001
△		Rush, Kellogg's	*Juncus kelloggii*		BC	May 2003
△		Sand-verbena, Pink	*Abronia umbellata*		BC	May 2004
△	↑	Sand-verbena, Small-flowered	*Tripterocalyx micranthus*		AB SK	Nov 2002
△		Sandwort, Dwarf	*Minuartia pusilla*		BC	May 2004
△		Sanicle, Bear's-foot	*Sanicula arctopoides*		BC	May 2001
⏃	↑	Sedge, False Hop	*Carex lupuliformis*		ON QC	May 2000
⏃	↔	Sedge, Juniper	*Carex juniperorum*		ON	May 2000
△		Spike-rush, Horsetail	*Eleocharis equisetoides*		ON	Nov 2000
△	↔	Sundew, Thread-leaved	*Drosera filiformis*		NS	May 2001
⏃	↔	Thistle, Pitcher's	*Cirsium pitcheri*		ON	May 2000
△		Tonella, Small-flowered	*Tonella tenella*		BC	Nov 2003
⏃	↔	Toothcup	*Rotala ramosior*		BC ON	May 2000
⏃	↔	Tree, Cucumber	*Magnolia acuminata*		ON	May 2000
△		Trefoil, Bog Bird's-foot	*Lotus pinnatus*		BC	May 2004
⏃	↔	Trillium, Drooping	*Trillium flexipes*		ON	May 2000
△		Triteleia, Howell's	*Triteleia howellii*		BC	May 2003
⏃*	↔	Twayblade, Purple	*Liparis liliifolia*		ON	May 2001

ENDANGERED CATEGORY (169) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Vascular Plants (67) (*continued*)					
△ ↑	Violet, Bird's-foot	*Viola pedata*		ON	May 2002
△	Willow, Barrens	*Salix jejuna*		NL	May 2001
⏀ ↔	Wintergreen, Spotted	*Chimaphila maculata*		ON QC	May 2000
⏀* ↔	Wood-poppy	*Stylophorum diphyllum*		ON	May 2000
⏀ ↑	Woodsia, Blunt-lobed	*Woodsia obtusa*		ON QC	May 2000
△	Woolly-heads, Dwarf	*Psilocarphus brevissimus*		BC	Nov 2003
△	Woolly-heads, Tall	*Psilocarphus elatior*	Pacific population	BC	May 2001
Mosses (5)					
△	Moss, Margined Streamside	*Scouleria marginata*		BC	Nov 2002
△	Moss, Poor Pocket	*Fissidens pauperculus*		BC	Nov 2001
⏀* ↑	Moss, Rigid Apple	*Bartramia stricta*		BC	May 2000
△	Moss, Silver Hair	*Fabronia pusilla*		BC	Nov 2002
△	Moss, Spoon-leaved	*Bryoandersonia illecebra*		ON	May 2003
Lichens (2)					
△	Lichen, Boreal Felt	*Erioderma pedicellatum*	Atlantic population	NB NS	May 2002
⏀ ↔	Seaside Centipede	*Heterodermia sitchensis*		BC	May 2000

THREATENED CATEGORY (114)

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Mammals (14)						
△	↑	Bat, Pallid	*Antrozous pallidus*		BC	May 2000
△		Bison, Plains	*Bison bison bison*		BC AB SK MB	May 2004
△	↔	Bison, Wood	*Bison bison athabascae*		YT NT BC AB	May 2000
△	↔	Caribou, Woodland	*Rangifer tarandus caribou*	Boreal population	NT BC AB SK MB ON QC NL	May 2002
△	↔	Caribou, Woodland	*Rangifer tarandus caribou*	Southern Mountain population	BC AB	May 2002
△	↑	Ermine *haidarum* subspecies	*Mustela erminea haidarum*		BC	May 2001
△	↑	Fox, Grey	*Urocyon cinereoargenteus*		MB ON	May 2002
⏃	↔	Otter, Sea	*Enhydra lutris*		BC Pacific Ocean	May 2000
⏃*	↔	Shrew, Pacific Water	*Sorex bendirii*		BC	May 2000
△	↻	Whale, Beluga	*Delphinapterus leucas*	Cumberland Sound population	NU Arctic Ocean	May 2004
△	↓	Whale, Beluga	*Delphinapterus leucas*	St. Lawrence Estuary population	QC Atlantic Ocean	May 2004
△	↔	Whale, Humpback	*Megaptera novaeangliae*	North Pacific population	Pacific Ocean	May 2003
⏃*	↻	Whale, Killer	*Orcinus orca*	Northeast Pacific northern resident population	Pacific Ocean	Nov 2001
⏃*	↑	Whale, Killer	*Orcinus orca*	Northeast Pacific transient population	Pacific Ocean	Nov 2001
Birds (10)						
△		Albatross, Short-tailed	*Phoebastria albatrus*		BC	Nov 2003
⏃	↑	Bittern, Least	*Ixobrychus exilis*		MB ON QC NB	Nov 2001
⏃	↔	Falcon *anatum* subspecies, Peregrine	*Falco peregrinus anatum*		YT NT NU BC AB SK MB ON QC NB NS NL	May 2000
△	↑	Goshawk *laingi* subspecies, Northern	*Accipiter gentilis laingi*		BC	Nov 2000
⏃	↑	Gull, Ross's	*Rhodostethia rosea*		NT NU MB	Nov 2001
△	↔	Murrelet, Marbled	*Brachyramphus marmoratus*		BC	Nov 2000
⏃	↔	Pipit, Sprague's	*Anthus spragueii*		AB SK MB	May 2000
△		Shearwater, Pink-footed	*Puffinus creatopus*		BC	May 2004
△	↔	Shrike *excubitorides* subspecies, Loggerhead	*Lanius ludovicianus excubitorides*		AB SK MB	May 2004
△	↔	Warbler, Hooded	*Wilsonia citrina*		ON	Nov 2000
Reptiles (12)						
⏃	↔	Foxsnake, Eastern	*Elaphe gloydi*		ON	May 2000
⏃	↑	Gartersnake, Butler's	*Thamnophis butleri*		ON	Nov 2001
△		Gophersnake, Great Basin	*Pituophis catenifer deserticola*		BC	May 2002
△	↔	Massasauga	*Sistrurus catenatus*		ON	Nov 2002
⏃	↔	Ratsnake, Eastern	*Elaphe obsoleta*		ON	May 2000
△		Rattlesnake, Western	*Crotalus oreganus*		BC	May 2004
△		Ribbonsnake, Eastern	*Thamnophis sauritus*	Atlantic population	NS	May 2002
⏃	↑	Snake, Eastern Hog-nosed	*Heterodon platirhinos*		ON	Nov 2001
⏃	↔	Snake, Queen	*Regina septemvittata*		ON	May 2000
△	↔	Softshell, Spiny	*Apalone spinifera*		ON QC	May 2002
△		Stinkpot	*Sternotherus odoratus*		ON QC	May 2002
		Turtle, Blanding's	*Emydoidea blandingii*	Nova Scotia population	NS	Apr 1993

THREATENED CATEGORY (114) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Amphibians (5)						
△*	↑	Salamander, Allegheny Mountain Dusky	*Desmognathus ochrophaeus*		QC	Nov 2001
△	↑	Salamander, Coastal Giant	*Dicamptodon tenebrosus*		BC	Nov 2000
△		Salamander, Jefferson	*Ambystoma jeffersonianum*		ON	Nov 2000
△	↑	Spadefoot, Great Basin	*Spea intermontana*		BC	Nov 2001
△*	↔	Toad, Fowler's	*Bufo fowleri*		ON	Nov 2000
Fishes (22)						
△		Bocaccio	*Sebastes paucispinis*		Pacific Ocean	Nov 2002
△*	↑	Chubsucker, Lake	*Erimyzon sucetta*		ON	Nov 2001
		Cisco, Blackfin	*Coregonus nigripinnis*		ON	Apr 1988
△	↔	Cisco, Shortjaw	*Coregonus zenithicus*		NT AB SK MB ON	May 2003
		Cisco, Shortnose	*Coregonus reighardi*		ON	Apr 1987
△	↻	Cod, Atlantic	*Gadus morhua*	Laurentian North population	Atlantic Ocean	May 2003
△		Cusk	*Brosme brosme*		Atlantic Ocean	May 2003
△	↔	Darter, Channel	*Percina copelandi*		ON QC	May 2002
△*	↔	Darter, Eastern Sand	*Ammocrypta pellucida*		ON QC	Nov 2000
△	↑	Gar, Spotted	*Lepisosteus oculatus*		ON	Nov 2000
△	↑	Lamprey, Cowichan Lake	*Lampetra macrostoma*		BC	Nov 2000
△*	↑	Minnow, Western Silvery	*Hybognathus argyritis*		AB	Nov 2001
		Redhorse, Black	*Moxostoma duquesnei*		ON	Apr 1988
		Redhorse, Copper	*Moxostoma hubbsi*		QC	Apr 1987
△	↑	Sculpin, Cultus Pygmy	*Cottus* sp.		BC	Nov 2000
		Sculpin, Deepwater	*Myoxocephalus thompsoni*	Great Lakes populations	ON	Apr 1987
△	↔	Sculpin, Shorthead	*Cottus confusus*		BC	May 2001
△	↑	Shiner, Carmine	*Notropis percobromus*		MB	Nov 2001
△	↔	Smelt, Lake Utopia Dwarf	*Osmerus* sp.		NB	May 2000
		Whitefish, Lake	*Coregonus clupeaformis*	Lake Simcoe population	ON	Apr 1987
△		Wolffish, Northern	*Anarhichas denticulatus*		Arctic Ocean Atlantic Ocean	May 2001
△		Wolffish, Spotted	*Anarhichas minor*		Arctic Ocean Atlantic Ocean	May 2001
Arthropods (5)						
△		Hairstreak, Behr's (Columbia)	*Satyrium behrii columbia*		BC	Nov 2000
△		Metalmark, Mormon	*Apodemia mormo*	Prairie population	SK	May 2003
△		Skipper, Dakota	*Hesperia dacotae*		MB SK	Nov 2003
△		Skipper, Dun	*Euphyes vestris*	Western population	BC	Nov 2000
△		Skipperling, Poweshiek	*Oarisma poweshiek*		MB	Nov 2003
Molluscs (2)						
△	↔	Abalone, Northern	*Haliotis kamtschatkana*		Pacific Ocean	May 2000
△		Jumping-slug, Dromedary	*Hemphillia dromedarius*		BC	May 2003
Vascular Plants (41)						
△	↔	Aster, Anticosti	*Symphyotrichum anticostense*		QC NB	May 2000
△	↑	Aster, Crooked-stem	*Symphyotrichum prenanthoides*		ON	May 2002
△	↑	Aster, Gulf of St. Lawrence	*Symphyotrichum laurentianum*		QC NB PE	May 2004
△	↑	Aster, Western Silvery	*Symphyotrichum sericeum*		MB ON	May 2000

THREATENED CATEGORY (114) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Vascular Plants (41) (*continued*)						
△	↔	Aster, White Wood	*Eurybia divaricata*		ON QC	Nov 2002
⏃*	↔	Aster, White-top	*Sericocarpus rigidus*		BC	May 2000
⏃	↑	Aster, Willowleaf	*Symphyotrichum praealtum*		ON	May 2003
△	↑	Bartonia, Branched	*Bartonia paniculata* ssp. *paniculata*		ON	Nov 2003
△	↑	Blazing Star, Dense	*Liatris spicata*		ON	May 2001
△	↔	Blue-flag, Western	*Iris missouriensis*		AB	May 2000
⏃	↔	Braya, Fernald's	*Braya fernaldii*		NL	May 2000
⏃	↑	Buffalograss	*Buchloë dactyloides*		SK MB	Nov 2001
		Chestnut, American	*Castanea dentata*		ON	Apr 1987
△	↔	Coffee-tree, Kentucky	*Gymnocladus dioicus*		ON	Nov 2000
△	↔	Colicroot	*Aletris farinosa*		ON	Nov 2000
△		Corydalis, Scouler's	*Corydalis scouleri*		BC	May 2001
△		Daisy, Lakeside	*Hymenoxys herbacea*		ON	May 2002
△	↔	Deerberry	*Vaccinium stamineum*		ON	Nov 2000
△		Fern, Lemmon's Holly	*Polystichum lemmonii*		BC	May 2003
⏃	↔	Gentian, Plymouth	*Sabatia kennedyana*		NS	May 2000
△	↑	Gentian, Victorin's	*Gentianopsis procera* spp. *macounii* var. *victorinii*		QC	May 2004
⏃	↔	Golden Crest	*Lophiola aurea*		NS	May 2000
△	↔	Goldenseal	*Hydrastis canadensis*		ON	May 2000
⏃*	↔	Greenbrier, Round-leaved	*Smilax rotundifolia*	Great Lakes Plains population	ON	May 2001
△	↑	Hackberry, Dwarf	*Celtis tenuifolia*		ON	Nov 2003
△	↑	Hoptree, Common	*Ptelea trifoliata*		ON	Nov 2002
△	↑	Hyacinth, Wild	*Camassia scilloides*		ON	May 2002
△	↔	Jacob's-ladder, Van Brunt's	*Polemonium vanbruntiae*		QC	Nov 2002
△		Lily, Lyall's Mariposa	*Calochortus lyallii*		BC	May 2001
⏃	↔	Mosquito-fern, Mexican	*Azolla mexicana*		BC	May 2000
⏃*	↓	Mouse-ear-cress, Slender	*Halimolobos virgata*		AB SK	May 2000
△	↑	Orchid, Phantom	*Cephalanthera austiniae*		BC	May 2000
⏃*	↔	Prairie-clover, Hairy	*Dalea villosa* var. *villosa*		SK MB	May 2000
⏃	↔	Redroot	*Lachnanthes caroliana*		NS	May 2000
△		Sanicle, Purple	*Sanicula bipinnatifida*		BC	May 2001
△	↑	Soapweed	*Yucca glauca*		AB	May 2000
△	↔	Spiderwort, Western	*Tradescantia occidentalis*		AB SK MB	Nov 2002
△		Spike-rush, Tubercled	*Eleocharis tuberculosa*		NS	May 2000
⏃	↔	Violet, Yellow Montane	*Viola praemorsa* ssp. *praemorsa*		BC	May 2000
⏃	↔	Water-pennywort	*Hydrocotyle umbellata*		NS	May 2000
△	↔	Water-willow, American	*Justicia americana*		ON QC	May 2000
Mosses (2)						
△		Bryum, Porsild's	*Mielichhoferia macrocarpa*		AB BC NL NU	Nov 2003
△		Moss, Haller's Apple	*Bartramia halleriana*		BC AB	Nov 2001
Lichens (1)						
△		Jellyskin, Flooded	*Leptogium rivulare*		MB ON	May 2004

SPECIAL CONCERN CATEGORY (140)

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Mammals (26)						
△	↔	Bat, Spotted	*Euderma maculatum*		BC	May 2004
△	↔	Bear, Grizzly	*Ursus arctos*	Northwestern population	YT NT NU BC AB	May 2002
⏃*	↔	Bear, Polar	*Ursus maritimus*		YT NT NU MB ON QC NL	Nov 2002
⏃	↔	Beaver, Mountain	*Aplodontia rufa*		BC	Nov 2001
△	↻	Caribou, Barren-ground	*Rangifer tarandus groenlandicus*	Dolphin and Union population	NT NU	May 2004
△	↑	Caribou, Woodland	*Rangifer tarandus caribou*	Northern Mountain population	YT NT BC	May 2002
		Cottontail *nuttallii* subspecies, Nuttall's	*Sylvilagus nuttallii nuttallii*		BC	Apr 1994
		Kangaroo Rat, Ord's	*Dipodomys ordii*		AB SK	Apr 1995
⏃	↔	Mole, Eastern	*Scalopus aquaticus*		ON	Nov 2000
		Mouse *megalotis* subspecies, Western Harvest	*Reithrodontomys megalotis megalotis*		BC	Apr 1994
△	↓	Porpoise, Harbour	*Phocoena phocoena*	Northwest Atlantic population	Atlantic Ocean	May 2003
△	☼	Porpoise, Harbour	*Phocoena phocoena*	Pacific Ocean population	Pacific Ocean	Nov 2003
⏃	↔	Prairie Dog, Black-tailed	*Cynomys ludovicianus*		SK	Nov 2000
△	↑	Sea Lion, Steller	*Eumetopias jubatus*		BC Pacific Ocean	Nov 2003
		Seal Lacs des Loups Marins subspecies, Harbour	*Phoca vitulina mellonae*		QC	Apr 1996
		Shrew, Gaspé	*Sorex gaspensis*		QC NB NS	Apr 1988
		Squirrel, Southern Flying	*Glaucomys volans*		ON QC NS	Apr 1988
⏃	↔	Vole, Woodland	*Microtus pinetorum*		ON QC	Nov 2001
△	↔	Whale, Beluga	*Delphinapterus leucas*	Eastern High Arctic - Baffin Bay population	NU Arctic Ocean	May 2004
△	↻	Whale, Beluga	*Delphinapterus leucas*	Western Hudson Bay population	MB NU ON Arctic Ocean Atlantic Ocean	May 2004
		Whale, Fin	*Balaenoptera physalus*		Atlantic Ocean Pacific Ocean	Apr 1987
△	↑	Whale, Grey	*Eschrichtius robustus*	Eastern North Pacific population	Pacific Ocean Arctic Ocean	May 2004
⏃*		Whale, Killer	*Orcinus orca*	Northeast Pacific offshore population	Pacific Ocean	Nov 2001
		Whale, Sowerby's Beaked	*Mesoplodon bidens*		Atlantic Ocean	Apr 1989
△	☼	Wolf, Eastern	*Canis lupus lycaon*		ON QC	May 2001
△	↔	Wolverine	*Gulo gulo*	Western population	YT NT NU BC AB SK MB ON	May 2003
Birds (22)						
△	↔	Chat *virens* subspecies, Yellow-breasted	*Icteria virens virens*		ON	Nov 2000
△	↔	Curlew, Long-billed	*Numenius americanus*		BC AB SK	Nov 2002
△	↓	Duck, Harlequin	*Histrionicus histrionicus*	Eastern population	NU QC NB NS NL	May 2001
⏃	↔	Falcon *pealei* subspecies, Peregrine	*Falco peregrinus pealei*		BC	Nov 2001
	↓	Falcon *tundrius* subspecies, Peregrine	*Falco peregrinus tundrius*		YT NT NU QC NL	Apr 1992
△		Goldeneye, Barrow's	*Bucephala islandica*	Eastern population	QC NB NS PE NL	Nov 2000
⏃	↔	Gull, Ivory	*Pagophila eburnea*		YT NT NU NL	Nov 2001
	↓	Hawk, Ferruginous	*Buteo regalis*		AB SK MB	Apr 1995

SPECIAL CONCERN CATEGORY (140) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Birds (22) *(contined)*						
	↔	Hawk, Red-shouldered	*Buteo lineatus*		ON QC NB	Apr 1996
		Heron *fannini* subspecies, Great Blue	*Ardea herodias fannini*		BC	Apr 1997
		Murrelet, Ancient	*Synthliboramphus antiquus*		BC	Apr 1993
△	↔	Owl, Barn	*Tyto alba*	Western population	BC	Nov 2001
△	↔	Owl, Flammulated	*Otus flammeolus*		BC	Nov 2001
		Owl, Short-eared	*Asio flammeus*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1994
△	↔	Rail, Yellow	*Coturnicops noveboracensis*		NT BC AB SK MB ON QC NB	Nov 2001
△	↻	Screech-Owl *kennicottii* subspecies, Western	*Megascops kennicottii kennicottii*		BC	May 2002
△	↔	Sparrow *princeps* subspecies, Savannah	*Passerculus sandwichensis princeps*		NS	May 2000
		Thrush, Bicknell's	*Catharus bicknelli*		QC NB NS	Apr 1999
△	↔	Warbler, Cerulean	*Dendroica cerulea*		ON QC	May 2003
	↔	Waterthrush, Louisiana	*Seiurus motacilla*		ON QC	Apr 1996
△	↔	Woodpecker, Lewis's	*Melanerpes lewis*		BC	Nov 2001
		Woodpecker, Red-headed	*Melanerpes erythrocephalus*		SK MB ON QC	Apr 1996
Reptiles (9)						
△		Boa, Rubber	*Charina bottae*		BC	May 2003
		Lizard, Greater Short-horned	*Phrynosoma hernandesi*		AB SK	Apr 1992
△		Milksnake	*Lampropeltis triangulum*		ON QC	May 2002
		Racer, Eastern Yellow-bellied	*Coluber constrictor flaviventris*		SK	Apr 1991
△		Ribbonsnake, Eastern	*Thamnophis sauritus*	Great Lakes population	ON	May 2002
		Skink, Five-lined	*Eumeces fasciatus*		ON	Apr 1998
△		Skink, Western	*Eumeces skiltonianus*		BC	May 2002
△		Turtle, Northern Map	*Graptemys geographica*		ON QC	May 2002
		Turtle, Wood	*Glyptemys insculpta*		ON QC NB NS	Apr 1996
Amphibians (7)						
△		Frog, Coast Tailed	*Ascaphus truei*		BC	May 2000
△	↔	Frog, Northern Leopard	*Rana pipiens*	Western Boreal/Prairie populations	NT AB SK MB	Nov 2002
△	↔	Frog, Red-legged	*Rana aurora*		BC	May 2002
△*	↔	Salamander, Coeur d'Alene	*Plethodon idahoensis*		BC	Nov 2001
△	↔	Salamander, Spring	*Gyrinophilus porphyriticus*		ON QC	May 2002
△	↔	Toad, Great Plains	*Bufo cognatus*		AB SK MB	May 2002
△		Toad, Western	*Bufo boreas*		YT NT BC AB	Nov 2002
Fishes (29)						
		Buffalo, Bigmouth	*Ictiobus cyprinellus*		SK MB ON	Apr 1989
		Buffalo, Black	*Ictiobus niger*		ON	Apr 1989
△	↔	Chub, Silver	*Macrhybopsis storeriana*		MB ON	May 2001
		Cisco, Spring	*Coregonus* sp.		QC	Apr 1992
△	↻	Cod, Atlantic	*Gadus morhua*	Arctic population	Arctic Ocean	May 2003
△	↻	Cod, Atlantic	*Gadus morhua*	Maritimes population	Atlantic Ocean	May 2003
		Dace, Redside	*Clinostomus elongatus*		ON	Apr 1987
		Dace, Umatilla	*Rhinichthys umatilla*		BC	Apr 1988
		Darter, Greenside	*Etheostoma blennioides*		ON	Apr 1990
△	↔	Killifish, Banded	*Fundulus diaphanus*	Newfoundland population	NL	May 2003

SPECIAL CONCERN CATEGORY (140) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Fishes (29) *(continued)*						
		Kiyi	*Coregonus kiyi*		ON	Apr 1988
		Lamprey, Chestnut	*Ichthyomyzon castaneus*		SK MB	Apr 1991
		Lamprey, Northern Brook	*Ichthyomyzon fossor*		MB ON QC	Apr 1991
△	‹ ›	Minnow, Pugnose	*Opsopoeodus emiliae*		ON	May 2000
	‹ ›	Redhorse, River	*Moxostoma carinatum*		ON QC	Apr 1987
△		Sculpin, Columbia Mottled	*Cottus bairdi hubbsi*		BC	May 2000
△+	‹ ›	Shiner, Bridle	*Notropis bifrenatus*		ON QC	Nov 2001
	‹ ›	Shiner, Silver	*Notropis photogenis*		ON	Apr 1987
		Stickleback, Charlotte Unarmoured	*Gasterosteus* sp.		BC	Apr 1983
		Stickleback, Giant	*Gasterosteus* sp.		BC	Apr 1980
		Sturgeon, Green	*Acipenser medirostris*		BC	Apr 1987
		Sturgeon, Shortnose	*Acipenser brevirostrum*		NB	Apr 1980
△+	‹ ›	Sucker, Spotted	*Minytrema melanops*		ON	Nov 2001
		Sunfish, Orangespotted	*Lepomis humilis*		ON	Apr 1989
		Sunfish, Redbreast	*Lepomis auritus*		NB	Apr 1989
△	‹ ›	Topminnow, Blackstripe	*Fundulus notatus*		ON	May 2001
△+	‹ ›	Warmouth	*Lepomis gulosus*		ON	Nov 2001
		Whitefish, Squanga	*Coregonus* sp.		YT	Apr 1987
△		Wolffish, Atlantic	*Anarhichas lupus*		Atlantic Ocean	Nov 2000
Arthropods (2)						
△	‹ ›	Monarch	*Danaus plexippus*		BC AB SK MB ON QC NB NS PE	Nov 2001
△		Weidemeyer's Admiral	*Limenitis weidemeyerii*		AB	May 2000
Molluscs (4)						
△		Jumping-slug, Warty	*Hemphillia glandulosa*		BC	May 2003
△		Lampmussel, Yellow	*Lampsilis cariosa*		NB NS	May 2004
△		Mussel, Rocky Mountain Ridged	*Gonidea angulata*		BC	Nov 2003
△		Oyster, Olympia	*Ostrea conchaphila*		BC	Nov 2000
Vascular Plants (35)						
△	↓	Ash, Blue	*Fraxinus quadrangulata*		ON	Nov 2000
		Aster, Bathurst	*Symphyotrichum subulatum*	Bathurst population	NB	Apr 1992
△		Beggarticks, Vancouver Island	*Bidens amplissima*		BC	Nov 2001
		Bulrush, Long's	*Scirpus longii*		NS	Apr 1994
		Columbo, American	*Frasera caroliniensis*		ON	Apr 1993
△		Fern, American Hart's-tongue	*Asplenium scolopendrium*		ON	Nov 2000
		Fern, Broad Beech	*Phegopteris hexagonoptera*		ON QC	Apr 1983
△	‹ ›	Fern, Coastal Wood	*Dryopteris arguta*		BC	Nov 2001
		Fleabane, Provancher's	*Erigeron philadelphicus* var. *provancheri*		QC	Apr 1992
△		Goldenrod, Riddell's	*Solidago riddellii*		MB ON	Nov 2000
		Goosefoot, Smooth	*Chenopodium subglabrum*		AB SK MB	Apr 1992
		Green Dragon	*Arisaema dracontium*		ON QC	Apr 1984
△	‹ ›	Hairgrass, Mackenzie	*Deschampsia mackenzieana*		SK	Nov 2001
	↓	Helleborine, Giant	*Epipactis gigantea*		BC	Apr 1998
△+	‹ ›	Indian-plantain, Tuberous	*Arnoglossum plantagineum*		ON	May 2002
△	‹ ›	Lilaeopsis, Eastern	*Lilaeopsis chinensis*		NS	May 2004
		Locoweed, Hare-footed	*Oxytropis lagopus*		AB	Apr 1995

SPECIAL CONCERN CATEGORY (140) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Vascular Plants (35) (*continued*)						
		Meadowfoam, Macoun's	*Limnanthes macounii*		BC	Apr 1988
⏢	↔	Milk-vetch, Fernald's	*Astragalus robbinsii* var. *fernaldii*		QC NL	Nov 2001
	↔	Oak, Shumard	*Quercus shumardii*		ON	Apr 1999
⏢*	↓	Pepperbush, Sweet	*Clethra alnifolia*		NS	May 2001
		Pondweed, Hill's	*Potamogeton hillii*		ON	Apr 1986
		Quillwort, Bolander's	*Isoëtes bolanderi*		AB	Apr 1995
⏢*	↓	Rose, Climbing Prairie	*Rosa setigera*		ON	May 2003
		Rose-mallow, Swamp	*Hibiscus moscheutos*		ON	Apr 1987
		Rue-anemone, False	*Enemion biternatum*		ON	Apr 1990
△	↔	Rush, New Jersey	*Juncus caesariensis*		NS	May 2004
△		Tansy, Floccose	*Tanacetum huronense* var. *floccosum*		SK	May 2000
⏢	↔	Thrift, Athabasca	*Armeria maritima* ssp. *interior*		SK	May 2002
△	↔	Water-hemlock, Victorin's	*Cicuta maculata* var. *victorinii*		QC	May 2004
△		Willow, Felt-leaf	*Salix silicicola*		NU SK	May 2000
△		Willow, Sand-dune Short-capsuled	*Salix brachycarpa* var. *psammophila*		SK	May 2000
△		Willow, Turnor's	*Salix turnorii*		SK	May 2000
△		Woolly-heads, Tall	*Psilocarphus elatior*	Prairie population	AB SK	May 2001
△		Yarrow, Large-headed Woolly	*Achillea millefolium* var. *megacephalum*		SK	May 2000
Mosses (2)						
△		Moss, Columbian Carpet	*Bryoerythrophyllum columbianum*		BC	May 2004
△		Moss, Twisted Oak	*Syntrichia laevipila*		BC	May 2004
Lichens (4)						
		Cryptic Paw	*Nephroma occultum*		BC	Apr 1995
△		Lichen, Boreal Felt	*Erioderma pedicellatum*	Boreal population	NL	May 2002
		Oldgrowth Specklebelly	*Pseudocyphellaria rainierensis*		BC	Apr 1996
		Seaside Bone	*Hypogymnia heterophylla*		BC	Apr 1996

Table 8. Species assessed and found to be in the Not at Risk category, with geographical occurrence (by province, territory or ocean) and date of last assessment (151 species).

NOT AT RISK CATEGORY (151)

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Mammals (44)						
△	↻	Badger *taxus* subspecies, American	*Taxidea taxus taxus*		AB SK MB	May 2000
	• •	Bear, American Black	*Ursus americanus*		YT NT NU BC AB SK MB ON QC NB NS NL	Apr 1999
△	• •	Caribou, Woodland	*Rangifer tarandus caribou*	Newfoundland population	NL	May 2002
	• •	Cottontail *pinetis* subspecies, Nuttall's	*Sylvilagus nuttallii pinetis*		AB SK	Apr 1994
		Dolphin, Atlantic White-sided	*Lagenorhynchus acutus*		Atlantic Ocean	Apr 1991
		Dolphin, Bottlenose	*Tursiops truncatus*		Atlantic Ocean	Apr 1993
		Dolphin, Common	*Delphinus delphis*		Atlantic Ocean Pacific Ocean	Apr 1991
		Dolphin, Northern Right Whale	*Lissodelphis borealis*		Pacific Ocean	Apr 1990
		Dolphin, Pacific White-sided	*Lagenorhynchus obliquidens*		Pacific Ocean	Apr 1990
		Dolphin, Risso's	*Grampus griseus*		Atlantic Ocean Pacific Ocean	Apr 1990
		Dolphin, Striped	*Stenella coeruleoalba*		Atlantic Ocean Pacific Ocean	Apr 1993
		Dolphin, White-beaked	*Lagenorhynchus albirostris*		Atlantic Ocean	Apr 1998
	✓	Gopher, Plains Pocket	*Geomys bursarius*		MB	Apr 1998
△	• •	Lynx, Canada	*Lynx canadensis*		YT NT NU BC AB SK MB ON QC NB NS NL	May 2001
	• •	Narwhal	*Monodon monceros*		Arctic Ocean	Apr 1987
		Porpoise, Dall's	*Phocoenoides dalli*		Pacific Ocean	Apr 1989
		Sea Lion, California	*Zalophus californianus*		BC Pacific Ocean	Apr 1987
		Seal Pacific subspecies, Harbour	*Phoca vitulina richardsi*		BC Pacific Ocean	Apr 1999
		Seal, Bearded	*Erignathus barbatus*		NL NU NT YT Atlantic Ocean Arctic Ocean	Apr 1994
		Seal, Grey	*Halichoerus grypus*		NB NL NS PE QC Atlantic Ocean	Apr 1999
		Seal, Hooded	*Cystophora cristata*		NL NU QC Atlantic Ocean	Apr 1986
		Seal, Northern Elephant	*Mirounga angustirostris*		BC Pacific Ocean	Apr 1986
		Seal, Northern Fur	*Callorhinus ursinus*		BC Pacific Ocean	Apr 1996
		Seal, Ringed	*Phoca hispida*		NL NU NT YT Atlantic Ocean Arctic Ocean	Apr 1989
		Squirrel, Cascade Mantled Ground	*Spermophilus saturatus*		BC	Apr 1992
		Squirrel, Fox	*Sciurus niger*		MB ON	Apr 1979
		Walrus, Atlantic	*Odobenus rosmarus rosmarus*	Eastern Arctic population	Arctic Ocean	Apr 1987
	✓	Weasel, Prairie Long-tailed	*Mustela frenata longicauda*		AB SK MB	Apr 1993
		Whale, Baird's Beaked	*Berardius bairdii*		Pacific Ocean	Apr 1992
△	• •	Whale, Beluga	*Delphinapterus leucas*	Eastern Beaufort Sea population	NT Arctic Ocean	May 2004
		Whale, Blainville's Beaked	*Mesoplodon densirostris*		Atlantic Ocean	Apr 1989

NOT AT RISK CATEGORY (151) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Mammals (44) *(continued)*					
	Whale, Cuvier's Beaked	*Ziphius cavirostris*		Atlantic Ocean Pacific Ocean	Apr 1990
	Whale, False Killer	*Pseudorca crassidens*		Pacific Ocean	Apr 1990
	Whale, Hubbs' Beaked	*Mesoplodon carlhubbsi*		Pacific Ocean	Apr 1989
△ ✓	Whale, Humpback	*Megaptera novaeangliae*	Western North Atlantic population	Atlantic Ocean	May 2003
	Whale, Long-finned Pilot	*Globicephala melas*		Atlantic Ocean	Apr 1994
	Whale, Northern Bottlenose	*Hyperoodon ampullatus*	Davis Strait population	Atlantic Ocean	Apr 1993
	Whale, Pygmy Sperm	*Kogia breviceps*		Atlantic Ocean Pacific Ocean	Apr 1994
	Whale, Short-finned Pilot	*Globicephala macrorhynchus*		Pacific Ocean	Apr 1993
	Whale, Sperm	*Physeter macrocephalus*		Atlantic Ocean Pacific Ocean	Apr 1996
	Whale, Stejneger's Beaked	*Mesoplodon stejneri*		Pacific Ocean	Apr 1989
	Whale, True's Beaked	*Mesoplodon mirus*		Atlantic Ocean	Apr 1989
	Wolf, Northern Grey	*Canis lupus occidentalis*		YT NT NU BC AB SK MB ON QC NL	Apr 1999
	Wolf, Southern Grey	*Canis lupus nubilus*		BC	Apr 1999
Birds (35)					
✓	Bluebird, Eastern	*Sialia sialis*		AB SK MB ON QC NB NS PE	Apr 1996
△ ✓	Chat *auricollis* subspecies, Yellow-breasted	*Icteria virens auricollis*	Prairie population	AB SK	Nov 2000
	Coot, American	*Fulica americana*		YT NT NU BC AB SK MB ON QC NB NS	Apr 1991
	Cormorant, Double-crested	*Phalocrocorax auritus*		YT NT BC AB SK MB ON QC NB NS PE NL	Apr 1978
	Crane *tabida* subspecies, Sandhill	*Grus canadensis tabida*		BC MB ON	Apr 1979
	Eagle, Bald	*Haliaeetus leucocephalus*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1984
✓	Eagle, Golden	*Aquila chrysaetos*		YT NT NU BC AB SK MB ON QC NL	Apr 1996
✓	Falcon, Prairie	*Falco mexicanus*		BC AB SK	Apr 1996
	Flycatcher, Grey	*Empidonax wrightii*		BC	Apr 1992
	Goshawk *atricapillus* subspecies, Northern	*Accipiter gentilis atricapillus*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1995
	Grebe, Red-necked	*Podiceps grisegena*		YT NT NU BC AB SK MB ON QC NS NL	Apr 1982
✓	Gyrfalcon	*Falco rusticolus*		YT NT NU BC AB SK ON QC NS PE NL	Apr 1987
	Harrier, Northern	*Circus cyaneus*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1993
✓	Hawk, Cooper's	*Accipiter cooperii*		BC AB SK MB ON QC NB NS	Apr 1996
	Hawk, Red-tailed	*Buteo jamaicensis*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1995

NOT AT RISK CATEGORY (151) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Birds (35) (*continued*)					
	Hawk, Rough-legged	*Buteo lagopus*		YT NT NU BC MB ON QC NL	Apr 1995
◦ ◦	Hawk, Sharp-shinned	*Accipiter striatus*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1997
	Loon, Common	*Gavia immer*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1997
	Loon, Yellow-billed	*Gavia adamsii*		YT NT NU BC AB MB QC	Apr 1997
	Merlin	*Falco columbarius*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1985
	Owl, Boreal	*Aegolius funereus*		YT NT NU BC AB SK MB ON QC NB NS PE NL	Apr 1995
✓	Owl, Great Grey	*Strix nebulosa*		YT NT BC AB SK MB ON QC	Apr 1996
	Owl, Northern Hawk	*Surnia ulula*		YT NT BC AB SK MB ON QC NB NL	Apr 1992
	Owl, Snowy	*Bubo scandiaca*		YT NT NU MB QC NL	Apr 1995
✓	Pelican, American White	*Pelecanus erythrorhynchos*		BC AB SK MB ON	Apr 1987
	Screech-Owl, Eastern	*Megascops asio*		SK MB ON QC NB	Apr 1986
✓	Sparrow, Baird's	*Ammodramus bairdii*		AB SK MB	Apr 1996
	Sparrow, Nelson's Sharp-tailed	*Ammodramus nelsoni*		BC AB SK MB ON QC NB NS PE	Apr 1998
✓	Swan, Trumpeter	*Cygnus buccinator*		YT NT BC AB SK ON	Apr 1996
◦ ◦	Tern, Black	*Chlidonias niger*		NT BC AB SK MB ON QC NB NS	Apr 1996
✓	Tern, Caspian	*Sterna caspia*		NT BC AB SK MB ON QC NL	Apr 1999
	Tern, Common	*Sterna hirundo*		NT AB SK MB ON QC NB NS PE NL	Apr 1998
✓	Warbler, Prairie	*Dendroica discolor*		ON	Apr 1999
	Wren, Canyon	*Catherpes mexicanus*		BC	Apr 1992
	Wren, Sedge	*Cistothorus platensis*		AB SK MB ON QC NB	Apr 1993
Reptiles (5)					
△	Brownsnake, DeKay's	*Storeria dekayi*		ON QC	May 2002
△	Gartersnake, Northwestern	*Thamnophis ordinoides*		BC	May 2003
△	Lizard, Northern Alligator	*Elgaria coerulea*		BC	May 2002
	Racer, Western Yellow-bellied	*Coluber constrictor mormon*		BC	Apr 1991
△	Watersnake, Northern	*Nerodia sipedon sipedon*		ON QC	May 2002
Amphibians (14)					
	Ensatina	*Ensatina eschscholtzii*		BC	Apr 1999
△	Frog, Columbia Spotted	*Rana luteiventris*		YT BC AB	May 2000
	Frog, Northern Leopard	*Rana pipiens*	Eastern population	ON QC NB NS NL	Apr 1999
	Frog, Pickerel	*Rana palustris*		ON QC NB NS	Apr 1999
△	Frog, Western Chorus	*Pseudacris triseriata*		ON QC	May 2001
△	Mudpuppy	*Necturus maculosus*		MB ON QC	May 2000
	Salamander, Four-toed	*Hemidactylium scutatum*		ON QC NB NS	Apr 1999

NOT AT RISK CATEGORY (151) *continued*

Taxon/ Assessment Details		Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Amphibians (14) (*continued*)						
		Salamander, Northern Dusky	*Desmognathus fuscus*		ON QC NB	Apr 1999
		Salamander, Northwestern	*Ambystoma gracile*		BC	Apr 1999
△		Salamander, Tiger	*Ambystoma tigrinum*	Prairie / Boreal population	AB SK MB	Nov 2001
△		Salamander, Western Red-backed	*Plethodon vehiculum*		BC	Nov 2001
△		Spadefoot, Plains	*Spea bombifrons*		AB SK MB	May 2003
△		Toad, Canadian	*Bufo hemiophrys*		NT AB SK MB	May 2003
		Treefrog, Cope's Grey	*Hyla chrysoscelis*		MB	Apr 1999
Fishes (35)						
		Bloater	*Coregonus hoyi*		ON	Apr 1988
△	○	Chiselmouth	*Acrocheilus alutaceus*		BC	May 2003
		Chub, Hornyhead	*Nocomis biguttatus*		MB ON	Apr 1988
		Chub, River	*Nocomis micropogon*		ON	Apr 1988
		Dace, Leopard	*Rhinichthys falcatus*		BC	Apr 1990
		Darter, Least	*Etheostoma microperca*		ON	Apr 1989
		Darter, River	*Percina shumardi*		MB ON	Apr 1989
		Darter, Tessellated	*Etheostoma olmstedi*		ON QC	Apr 1993
		Herring, Blueback	*Alosa aestivalis*		NB NS	Apr 1980
		Killifish, Banded	*Fundulus diaphanus*	Mainland population	MB ON QC NB NS PE NL	Apr 1989
△	✓	Madtom, Brindled	*Noturus miurus*		ON	May 2001
		Minnow, Bluntnose	*Pimephales notatus*		MB ON QC	Apr 1998
		Minnow, Cutlips	*Exoglossum maxillingua*		ON QC	Apr 1994
		Minnow, Eastern Silvery	*Hybognathus regius*		ON QC	Apr 1997
		Pickerel, Chain	*Esox niger*		QC NB NS	Apr 1997
		Pickerel, Redfin	*Esox americanus americanus*		QC	Apr 1998
		Redhorse, Golden	*Moxostoma erythrurum*		MB ON	Apr 1989
△	✓	Sardine, Pacific	*Sardinops sagax*		Pacific Ocean	May 2002
		Sculpin, Fourhorn	*Myoxocephalus quadricornis*	Salt water form	Arctic Ocean Atlantic Ocean Pacific Ocean	Apr 1989
		Sculpin, Spoonhead	*Cottus ricei*		YT NT BC AB SK MB ON QC	Apr 1989
△	✓	Shiner, Bigmouth	*Notropis dorsalis*		MB	Nov 2003
		Shiner, Blackchin	*Notropis heterodon*		MB ON QC	Apr 1994
		Shiner, Ghost	*Notropis buchanani*		ON	Apr 1993
		Shiner, Redfin	*Lythrurus umbratilis*		ON	Apr 1988
		Shiner, Rosyface	*Notropis rubellus*		ON QC	Apr 1994
		Shiner, Striped	*Luxilus chrysocephalus*		ON	Apr 1993
		Shiner, Weed	*Notropis texanus*		MB	Apr 1999
		Silverside, Brook	*Labidesthes sicculus*		ON QC	Apr 1989
	✓	Stoneroller, Central	*Campostoma anomalum*		ON	Apr 1998
		Sturgeon, Lake	*Acipenser fulvescens*		AB SK MB ON QC	Apr 1986
		Sucker, Mountain	*Catostomus platyrhynchus*		BC AB SK	Apr 1991
		Sunfish, Green	*Lepomis cyanellus*		ON	Apr 1987
		Sunfish, Longear	*Lepomis megalotis*		ON QC	Apr 1987
△		Wolf-eel	*Anarrhichthys ocellatus*		Pacific Ocean	May 2003
		Y-Prickleback	*Allolumpenus hypochromus*		BC	Apr 1991

NOT AT RISK CATEGORY (151) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Arthropods (0)					
Molluscs (2)					
△	Capshell, Rocky Mountain	*Acroloxus coloradensis*	Western population	BC AB	Nov 2001
△	Crater, Spike-lip	*Appalachina sayana*		NB NS ON QC	Nov 2003
Vascular Plants (16)					
	Aster, Short's	*Symphyotrichum shortii*		ON	Apr 1999
	Aster, Yukon	*Symphyotrichum yukonense*		YT NT	Apr 1996
	Brickellia, Large-flowered	*Brickellia grandiflora*		BC AB	Apr 1996
	Fameflower	*Talinum sediforme*		BC	Apr 1990
	Fleabane, Dwarf	*Erigeron radicatus*		AB SK	Apr 1996
	Goldenweed, Northern Mock	*Stenotus borealis*		YT	Apr 1997
	Mermaid, False	*Floerkea proserpinacoides*		ON QC NS	Apr 1984
	Phlox, Blue	*Phlox alyssifolia*		AB SK	Apr 1996
	Pink, Rush	*Stephanomeria runcinata*		AB SK	Apr 1996
	Rhododendron, Pacific	*Rhododendron macrophyllum*		BC	Apr 1997
	Sagebrush, Wood's	*Artemisia rupestris* ssp. *woodii*		YT	Apr 1997
	Sedge, Nebraska	*Carex nebrascensis*		AB	Apr 1995
	Stitchwort, Sand	*Stellaria arenicola*		AB SK	Apr 1992
	Wallflower, Narrow-leaved	*Erysimum angustatum*		YT	Apr 1993
✓	Willow, Tyrrell's	*Salix tyrrellii*		NT SK	Apr 1999
	Woolly-heads, Slender	*Psilocarphus tenellus* var. *tenellus*		BC	Apr 1996
Mosses (0)					
Lichens (0)					

Table 9. Species considered and placed in the Data Deficient category because of insufficient scientific information, with geographical occurrence (by province, territory or ocean) and date of last assessment (33 species).

DATA DEFICIENT CATEGORY (33)

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Mammals (10)					
△ ○	Bat, Fringed	*Myotis thysanodes*		BC	May 2004
△ ○	Bat, Keen's Long-eared	*Myotis keenii*		BC	Nov 2003
○	Cougar	*Puma concolor couguar*	Eastern population	ON QC NB NS	Apr 1998
	Mouse *dychei* subspecies, Western Harvest	*Reithrodontomys megalotis dychei*		AB	Apr 1994
	Seal Altantic subspecies, Harbour	*Phoca vitulina concolor*		MB NB NL NS NU ON PE Atlantic Ocean Arctic Ocean	Apr 1999
	Vole, Sagebrush	*Lemmiscus curtatus*		AB SK	Apr 1996
	Whale, Dwarf Sperm	*Kogia simus*		Pacific Ocean	Apr 1997
△+ ↔	Whale, Killer	*Orcinus orca*	Northwest Atlantic / Eastern Arctic populations	Arctic Ocean Atlantic Ocean	Nov 2001
△	Whale, Sei	*Balaenoptera borealis*	Atlantic population	Atlantic Ocean	May 2003
	Wolf, Arctic Grey	*Canis lupus arctos*		NT NU	Apr 1999
Birds (2)					
	Poorwill, Common	*Phalaenoptilus nuttallii*		BC AB SK	Apr 1993
	Tern, Forster's	*Sterna forsteri*		BC AB SK MB ON	Apr 1996
Reptiles (2)					
△	Bullsnake	*Pituophis catenifer sayi*		AB SK	May 2002
△	Turtle, Eastern Box	*Terrapene carolina carolina*		ON	May 2002
Amphibians (0)					
Fishes (9)					
	Catfish, Flathead	*Pylodictis olivaris*		ON	Apr 1993
	Cisco, Bering	*Coregonus laurettae*		YT	Apr 1990
	Lamprey, Darktail	*Lethenteron alaskense*		NT	Apr 1990
△ ○	Madtom, Margined	*Noturus insignis*		ON QC	May 2002
△ ○	Prickleback, Pighead	*Acantholumpenus mackayi*		Arctic Ocean	May 2003
△ ○	Sculpin, Fourhorn	*Myoxocephalus quadricornis*	Freshwater form	NL NT NU	Nov 2003
	Sculpin, Spinynose	*Asemichthys taylori*		Pacific Ocean	Apr 1997
↔	Whitefish, Lake	*Coregonus clupeaformis*	Mira River population	NS	Nov 2000
△ ○	Wolffish, Bering	*Anarhichas orientalis*		Arctic Ocean	Nov 2002
Arthropods (0)					
Molluscs (4)					
△	Capshell, Rocky Mountain	*Acroloxus coloradensis*	Eastern population	ON QC	Nov 2001
△	Duskysnail, Squat	*Lyogyrus granum*		NB NS	Nov 2003
△	Fieldslug, Evening	*Deroceras hesperium*		BC	Nov 2003
	Snail, Gatineau Tadpole	*Physella parkeri latchfordi*		QC	Apr 1997
Vascular Plants (4)					
	Barley, Little	*Hordeum pusillum*		AB	Apr 1993
	Goldenweed, Rabbit-brush	*Ericameria bloomeri*		BC	Apr 1997
	Pinweed, Impoverished	*Lechea intermedia* var. *depauperata*		SK	Apr 1997
	Whitlow-grass, Kananaskis	*Draba kananaskis*		AB	Apr 1992
Mosses (0)					

DATA DEFICIENT CATEGORY (33) *continued*

Taxon/ Assessment Details	Common Name	Scientific Name	Population Name	Range of Occurrence	Assessment Date
Lichens (2)					
△	Stubble, Flexuous Golden	*Chaenotheca servitii*		NS	Nov 2002
△	Stubble, Red Oak	*Phaeocalicium minutissimum*		QC NB	Nov 2002

RECORD OF STATUS REASSESSMENTS

A short history is provided for each species that has been reassessed by COSEWIC, including date(s) of assessment and the status assigned. In October 1999 COSEWIC began using quantitative criteria to augment the earlier method of using status definitions to assign status. For species assessed since October 1999, the type of status report used as the basis for reassessment is indicated. Update reports focus on changes in the biological and threat information that has become available since the last time a report was prepared. For some species, COSEWIC deemed the existing report suitable for reassessment.

Acadian Flycatcher
Designated Endangered in April 1994. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Allegheny Mountain Dusky Salamander
Designated Special Concern in April 1998. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report with an addendum.

American Badger
Designated Not at Risk in April 1979. The original Canada-wide designation was de-activated in May 2000 when the American Badger was split according to subspecies.

American Badger *jacksoni* subspecies
The species was considered a single unit and designated Not at Risk in 1979. Each subspecies was given a separate designation in May 2000. The *jacksoni* subspecies was designated Endangered. Last assessment based on an update status report.

American Badger *jeffersonii* subspecies
The species was considered a single unit and designated Not at Risk in 1979. Each subspecies was given a separate designation in May 2000. The *jeffersonii* subspecies was designated Endangered. Last assessment based on an update status report.

American Badger *taxus* subspecies
Entire Canadian range was designated as Not at Risk in 1979. Each subspecies was given a separate designation in May 2000. The *taxus* subspecies was designated Not at Risk. Last assessment based on an update status report.

American Black Bear
Designated Not at Risk in April 1998 and in April 1999.

American Ginseng
Designated Threatened in April 1988. Status re-examined and designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

American Water-willow
Designated Threatened in April 1984. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

American White Pelican
Designated Threatened in April 1978. Status re-examined and designated Not at Risk in April 1987.

Anticosti Aster
Designated Threatened in April 1990. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Athabasca Thrift
Designated Threatened in April 1981. Status re-examined and designated Special Concern in April 1999. Status re-examined and confirmed in May 2002. Last assessment based on an existing status report.

Atlantic Cod
Designated Special Concern in April 1998. Split into four populations in May 2003. The original designation was de-activated. Last assessment based on an update status report.

Atlantic Cod (Arctic population)
The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Arctic population was designated Special Concern. Last assessment based on an update status report.

Atlantic Cod (Laurentian North population)
The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Laurentian North population was designated Threatened. Last assessment based on an update status report.

Atlantic Cod (Maritimes population)
The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Maritimes population was designated Special Concern. Last assessment based on an update status report.

Atlantic Cod (Newfoundland and Labrador population)
The species was considered a single unit and designated Special Concern in April 1998. When the species was split into separate populations in May 2003, the Newfoundland and Labrador population was designated Endangered. Last assessment based on an update status report.

Atlantic Walrus (Northwest Atlantic population)
Extirpated around 1850. Designated Extirpated in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Atlantic Whitefish
Designated Endangered in April 1984. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Aurora Trout
Designated Endangered in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Baird's Sparrow
Designated Threatened in April 1989. Status re-examined and designated Not at Risk in April 1996.

Banded Killifish (Newfoundland population)
Designated Special Concern in April 1989. Status re-examined and confirmed in May 2003. Last assessment based on an update status report.

Banff Longnose Dace
Extinct since 1986. Designated Extinct in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Banff Springs Snail
Designated Threatened in April 1997. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Barn Owl
The species was considered a single unit and designated Special Concern in April 1984. In April 1999, the Western and Eastern populations were assessed separately. The original designation for the Canadian range of the Barn Owl was de-activated.

Barn Owl (Eastern population)
The species was considered a single unit and designated Special Concern in April 1984. In April 1999, the Western and Eastern populations were assessed separately. The Eastern population was designated Endangered. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Barn Owl (Western population)
The species was considered a single unit and designated Special Concern in April 1984. In April 1999, the Western and Eastern populations were assessed separately. The Western population was designated Special Concern. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Barren-ground Caribou (Dolphin and Union population)
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. In May 2004, all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The Dolphin and Union population is comprised of a portion of the former "Low Arctic population", and it was designated Special Concern in May 2004. Last assessment based on an update status report.

Bashful Bulrush
Designated Special Concern in April 1986. Status re-examined and designated Endangered in May 2000. Last assessment based on an update status report.

Bearded Owl-clover
Designated Endangered in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Beluga Whale (Cumberland Sound population)
The Southeast Baffin Island-Cumberland Sound population was designated Endangered in April 1990. In May 2004, the structure of the population was redefined and named "Cumberland Sound population", and the Southeast Baffin Island animals were included as part of the Western Hudson Bay population. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Beluga Whale (Eastern Beaufort Sea population)
Designated Not at Risk in April 1985 and in May 2004. Last assessment based on an update status report.

Beluga Whale (Eastern High Arctic - Baffin Bay population)
Designated Special Concern in April 1992. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Beluga Whale (Eastern Hudson Bay population)
Designated Threatened in April 1988. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Beluga Whale (St. Lawrence Estuary population)
Designated Endangered in April 1983. Status re-examined and confirmed in April 1997. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Beluga Whale (Ungava Bay population)
Designated Endangered in April 1988. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Beluga Whale (Western Hudson Bay population)
Designated Not at Risk in April 1993. The population was redefined in May 2004 to include those Southeast Baffin Island animals outside Cumberland Sound, previously considered part of the "Southeast Baffin Island-Cumberland Sound population" which is now called "Cumberland Sound population". Status re-examined and designated Special Concern in May 2004. Last assessment based on an update status report.

Benthic Enos Lake Stickleback
Original designation (including both Benthic and Limnetic species) was Threatened in April 1988. Split into two species when re-examined in November 2002 and the Benthic Enos Lake Stickleback was designated Endangered. Last assessment based on an update status report.

Benthic Hadley Lake Stickleback
Extinct in 1999. Designated Extinct in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Benthic Paxton Lake Stickleback
Designated Threatened in April 1998. Status re-examined and confirmed in April 1999. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Benthic Vananda Creek Stickleback
Designated Threatened in April 1999. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Bering Wolffish
Designated Special Concern in April 1989. Species considered in November 2002 and placed in the Data Deficient category. Last assessment based on an update status report.

Bigmouth Shiner
Designated Special Concern in April 1985. Status re-examined and designated Not at Risk in November 2003. Last assessment based on an update status report.

Bird's-foot Violet
Designated Threatened in April 1990. Status re-examined and designated Endangered in May 2002. Last assessment based on an update status report.

Black Tern
Designated Not at Risk in April 1988 and in April 1996.

Black-footed Ferret
Extirpated by 1974. Designated Extirpated in April 1978. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Blackstripe Topminnow
Designated Special Concern in April 1985. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

Black-tailed Prairie Dog
Designated Special Concern in April 1978. Status re-examined and confirmed in April 1988, April 1999 and November 2000. Last assessment based on an existing status report.

Blue Ash
Designated Threatened in April 1983. Status re-examined and designated Special Concern in November 2000. Last assessment based on an update status report.

Blue Racer
Designated Endangered in April 1991. Status re-examined and confirmed in May 2002. Last assessment based on an update status report.

Blue Walleye
Extinct since 1965. Designated Extinct in April 1985. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Blue Whale
The species was considered a single unit and designated Special Concern in April 1983. In May 2002, the species was split into two populations: Blue Whale (Atlantic population) and Blue Whale (Pacific population). The Atlantic population and the Pacific populations were both designated Endangered in May 2002. The original designation for Blue Whale was de-activated.

Blue Whale (Atlantic population)
The species was considered a single unit and designated Special Concern in April 1983. Split into two populations in May 2002. The Atlantic population was designated Endangered in May 2002. Last assessment based on an update status report.

Blue Whale (Pacific population)
The species was considered a single unit and designated Special Concern in April 1983. Split into two populations in May 2002. The Pacific population was designated Endangered in May 2002. Last assessment based on an update status report.

Bluehearts
Designated Threatened in April 1985. Status re-examined and designated Endangered in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Blunt-lobed Woodsia
Designated Threatened in April 1994. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Bowhead Whale (Eastern and Western Arctic Populations)
Designated Endangered in April 1980. Split into two populations (Eastern Arctic and Western Arctic) to allow a separate designation for the Western Arctic population in April 1986. The original designation was de-activated.

Branched Bartonia
Designated Special Concern in April 1992. Status re-examined and designated Threatened in November 2003. Last assessment based on an update status report.

Bridle Shiner
Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report with an addendum.

Brindled Madtom
Designated Special Concern in April 1985. Status re-examined and designated Not at Risk in May 2001. Last assessment based on an update status report.

Buffalograss
Designated Special Concern in April 1998. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report.

Burrowing Owl
Designated Threatened in April 1979. Status re-examined and confirmed in April 1991. Status re-examined and designated Endangered in April 1995. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Butler's Gartersnake
Designated Special Concern in April 1999. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report.

Canada Lynx
Designated Not at Risk in April 1989 and in May 2001. Last assessment based on an update status report.

Caribou *dawsoni* subspecies
Extinct by the 1920's. Designated Extinct in April 1984. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Carmine Shiner
Designated Special Concern in April 1994. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report.

Caspian Tern
Designated Special Concern in April 1978. Status re-examined and designated Not at Risk in April 1999.

Central Stoneroller
Designated Special Concern in 1985. Status re-examined and designated Not at Risk in 1998.

Cerulean Warbler
Designated Special Concern in April 1993. Status re-examined and confirmed in May 2003. Last assessment based on an update status report.

Channel Darter
Designated Threatened in April 1993. Status re-examined and confirmed in May 2002. Last assessment based on an update status report.

Chiselmouth
Species considered in April 1997 and placed in the Data Deficient category. Re-examined in May 2003 and designated Not at Risk. Last assessment based on an update status report.

Climbing Prairie Rose
Designated Special Concern in April 1986. Status re-examined and designated Threatened in May 2002. Status re-examined and designated Special Concern in May 2003. Last assessment based on an existing status report with an addendum.

Coastal Giant Salamander
Designated Special Concern in April 1989. Status re-examined and designated Threatened in November 2000. Last assessment based on an update status report.

Coastal Wood Fern
Designated Special Concern in April 1998. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Coeur d'Alene Salamander
Designated Special Concern in April 1998. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report with an addendum.

Colicroot
Designated Threatened in April 1988. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Common Hoptree
Designated Special Concern in April 1984. Status re-examined and designated Threatened in November 2002. Last assessment based on an update status report.

Cooper's Hawk
Designated Special Concern in April 1983. Status re-examined and designated Not at Risk in April 1996.

Cougar (Eastern population)
Designated Endangered in April 1978. Species considered in April 1998 and placed in the Data Deficient category.

Cowichan Lake Lamprey
Designated Special Concern in April 1986. Status re-examined and confirmed in April 1998. Status re-examined and designated Threatened in November 2000. Last assessment based on an existing status report.

Crooked-stem Aster
Designated Special Concern in April 1999. Status re-examined and designated Threatened in May 2002. Last assessment based on an existing status report.

Cucumber Tree
Designated Endangered in April 1984. Status re-examined and confirmed Endangered in April 1999 and in May 2000. Last assessment based on an existing status report.

Cultus Pygmy Sculpin
Designated Special Concern in April 1997. Status re-examined and designated Threatened in November 2000. Last assessment based on an existing status report.

Deepwater Cisco
Extinct since 1952. Designated Extinct in April 1988. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Deerberry
Designated Threatened in April 1994. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Deltoid Balsamroot
Designated in April 1996 as Endangered. Status re-examined and confirmed Endangered in May 2000. Last assessment based on an existing status report.

Dense Blazing Star
Designated Special Concern in April 1988. Status re-examined and designated Threatened in May 2001. Last assessment based on an update status report.

Drooping Trillium
Designated Endangered in April 1996. Status re-assessed and confirmed in May 2000. Last assessment based on an existing status report.

Dwarf Hackberry
Designated Special Concern in April 1985. Status re-examined and designated Threatened in November 2003. Last assessment based on an update status report.

Dwarf Wedgemussel
Extirpated by 1968. Designated Extirpated in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Eastern Bluebird
Designated Special Concern in April 1984. Status re-examined and designated Not at Risk in April 1996.

Eastern Foxsnake
Designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Eastern Hog-nosed Snake
Designated Special Concern in April 1997. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report.

Eastern Lilaeopsis
Designated Special Concern in April 1987 and in May 2004. Last assessment based on an update status report.

Eastern Mole
Designated Special Concern in April 1980. Status re-examined and confirmed in April 1998 and in November 2000. Last assessment based on an existing status report.

Eastern Mountain Avens
Designated Endangered in April 1986. Status re-examined and confirmed Endangered in April 1999 and May 2000. Last assessment based on an existing status report.

Eastern Prairie Fringed-orchid
Designated Special Concern in April 1986. Status re-examined and designated Endangered in May 2003. Last assessment based on an update status report.

Eastern Prickly Pear Cactus
Designated Endangered in April 1985. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Eastern Ratsnake
Designated Threatened in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Eastern Sand Darter
Designated Threatened in April 1994. Status re-examined and confirmed in November 2000. Last assessment based on an existing status report with an addendum.

Eastern Wolf
Species considered in April 1999 and placed in the Data Deficient category. Re-examined in May 2001 and designated Special Concern. Last assessment based on an update status report.

Eelgrass Limpet
Extinct since 1929. Designated Extinct in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Engelmann's Quillwort
Designated Endangered in April 1992. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

Enos Lake Sticklebacks
Designated Threatened in April 1988. Split into two species when re-examined in November 2002: Benthic Enos Lake Stickleback and Limnetic Enos Lake Stickleback. The original designation was de-activated. Last assessment based on an update status report.

Ermine *haidarum* subspecies
Designated Special Concern in April 1984. Status re-examined and designated Threatened in May 2001. Last assessment based on an update status report.

Eskimo Curlew
Designated Endangered in April 1978. Status re-examined and confirmed Endangered in May 2000. Last assessment based on an update status report.

False Hop Sedge
Designated Threatened in April 1997. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Fernald's Braya
Designated Threatened in April 1997. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Fernald's Milk-vetch
Designated Special Concern in April 1997. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Ferruginous Hawk
Designated Threatened in April 1980. Status re-examined and designated Special Concern in April 1995.

Flammulated Owl
Designated Special Concern in April 1988. Status re-examined and confirmed Special Concern in April 1999 and in November 2001. Last assessment based on an existing status report.

Fourhorn Sculpin (Freshwater form)
Designated Special Concern in April 1989. Species considered in November 2003 and placed in the Data Deficient category. Last assessment based on an update status report.

Fowler's Toad
Designated Special Concern in April 1986. Status re-examined and designated Threatened in April 1999. Status re-examined and confirmed in November 2000. Last assessment based on an existing status report with an addendum.

Fringed Bat
Designated Special Concern in April 1988. Species considered in May 2004 and placed in the Data Deficient category. Last assessment based on an update status report.

Frosted Elfin
Extirpated by 1988. Designated Extirpated in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Furbish's Lousewort
Designated Endangered in April 1980. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Gattinger's Agalinis
Designated Endangered in April 1988. Status re-examined and confirmed in April 1999 and in May 2001. Last assessment based on an existing status report that was modified.

Giant Helleborine
Designated Threatened in April 1984. Status re-examined and designated Special Concern in April 1998.

Golden Crest
Designated Threatened in April 1987. Status re-examined and confirmed in April 1999 and in May 2000. Last assessment based on an existing status report.

Golden Eagle
Designated Not at Risk in April 1987 and in April 1996.

Golden Paintbrush
Designated Threatened in April 1995. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report with an addendum.

Goldenseal
Designated Threatened in April 1991. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Gravel Chub
Last recorded in Thames River drainage, Ontario in 1958. Designated Endangered in April 1985. Status re-examined and designated Extirpated in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Great Auk
Believed to be Extinct since 1844. Designated in April 1985 based on historic records only. Status report prepared and approved by COSEWIC in 1994. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Great Basin Spadefoot
Designated Special Concern in April 1998. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report.

Great Grey Owl
Designated Special Concern in April 1979. Status re-examined and confirmed in April 1990. Status re-examined and designated Not at Risk in April 1996.

Great Plains Toad
Designated Special Concern in April 1999. Status re-examined and confirmed in May 2002. Last assessment based on an existing status report.

Greater Prairie-Chicken
Last reported in 1987. Designated Endangered in April 1978. Status re-examined and designated Extirpated in April 1990. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Greater Sage-Grouse *phaios* subspecies
Has not been reported since the 1960s. Designated Extirpated in April 1997. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Greater Sage-Grouse *urophasianus* subspecies
Given conditional designation of Threatened in April 1997. Status re-examined and designated Endangered in April 1998 based on a revised status report. Status re-examined confirmed in May 2000. Last assessment based on an existing status report.

Grey Fox
Designated Special Concern in April 1979. Status re-examined and designated Threatened in May 2002. Last assessment based on an update status report.

Grey Whale (Atlantic population)
Extirpated before the end of the 1800s. Designated Extirpated in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Grey Whale (Eastern North Pacific population)
Designated Not at Risk in April 1987. Status re-examined and designated Special Concern in May 2004. Last assessment based on an update status report.

Grizzly Bear
The species was considered a single unit and designated Not at Risk in April 1979. Split into two populations in April 1991 (Prairie population and Northwestern population). The original designation for "Grizzly Bear" across was Canada de-activated.

Grizzly Bear (Northwestern population)
The species was considered a single unit and designated Not at Risk in April 1979. Split into two populations in April 1991 (Prairie population and Northwestern population). The Northwestern population was designated Special Concern in April 1991. Status was re-examined and confirmed in May 2002. Last assessment based on an update status report.

Grizzly Bear (Prairie population)
The species was considered a single unit and designated Not at Risk in April 1979. Split into two populations in April 1991 (Prairie population and Northwestern population). The Prairie population was designated Extirpated in April 1991. Status re-examined and confirmed in May 2000 and in May 2002. Last assessment based on an update status report.

Gulf of St. Lawrence Aster
Designated Special Concern in April 1989. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Gyrfalcon
Designated Not at Risk in April 1978 and in April 1987.

Hairy Prairie-clover
Designated Threatened in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report with an addendum.

Harbour Porpoise (Northwest Atlantic population)
Designated Threatened in April 1990. Status re-examined and confirmed in April 1991. Status re-examined and designated Special Concern in May 2003. Last assessment based on an update status report.

Harbour Porpoise (Pacific Ocean population)
Species considered in April 1991 and placed in the Data Deficient category. Re-examined in November 2003 and designated Special Concern. Last assessment based on an update status report.

Harlequin Duck (Eastern population)
The Eastern population was designated Endangered in April 1990. Status re-examined and designated Special Concern in May 2001. Last assessment based on an update status report.

Heart-leaved Plantain
Designated Endangered in April 1985. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Henslow's Sparrow
Designated Threatened in April 1984. Status re-examined and designated Endangered in April 1993. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Hoary Mountain-mint
Designated Endangered in April 1986. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Hooded Warbler
Designated Threatened in April 1994. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Hotwater Physa
Designated Endangered in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Humpback Whale (North Pacific population)
The "Western North Atlantic and North Pacific populations" were given a single designation of Threatened in April 1982. Split into two populations in April 1985 (Western North Atlantic population and North Pacific population). The North Pacific population designated Threatened in 1985. Status re-examined and confirmed in May 2003. Last assessment based on an update status report.

Humpback Whale (Western North Atlantic and North Pacific populations)
The "Western North Atlantic and North Pacific populations" were given a single designation of Threatened in April 1982. Split into two populations in April 1985 (Western North Atlantic population and North Pacific population). The original designation was de-activated.

Humpback Whale (Western North Atlantic population)
The "Western North Atlantic and North Pacific populations" were given a single designation of Threatened in April 1982. Split into two populations in April 1985 (Western North Atlantic population and North Pacific population). Western North Atlantic population designated Special Concern in April 1985. Status re-examined and designated Not at Risk in May 2003. Last assessment based on an update status report.

Illinois Tick-trefoil
No site records since 1888. Designated Extirpated in April 1991. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Island Marble
Extirpated by 1910. Designated Extirpated in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Ivory Gull
Designated Special Concern in April 1979. Status re-examined and confirmed in April 1996 and in November 2001. Last assessment based on an existing status report.

Juniper Sedge
Designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Karner Blue
Has not been observed since 1991. Designated Extirpated in April 1997. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Keen's Long-eared Bat
Designated Special Concern in April 1988. Species considered in November 2003 and placed in the Data Deficient category. Last assessment based on an update status report.

Kentucky Coffee-tree
Designated Threatened in April 1983. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Killer Whale (North Pacific resident populations)
Designated Threatened in April 1999. The designation of the Killer Whale (North Pacific resident populations) was de-activated in November 2001 when it was split into two populations: Killer Whale (Northeast Pacific northern resident population) and Killer Whale (Northeast Pacific southern resident population). Last assessment based on an existing status report with an addendum.

Killer Whale (Northeast Pacific northern resident population)
North Pacific resident populations designated Threatened in April 1999. Split into two populations in November 2001. The Northeast Pacific northern resident population was designated Threatened in November 2001. Last assessment based on an existing status report with an addendum.

Killer Whale (Northeast Pacific southern resident population)
North Pacific resident populations designated Threatened in April 1999. Split into two populations in November 2001. The Northeast Pacific southern resident population was designated Endangered in November 2001. Last assessment based on an existing status report with an addendum.

Killer Whale (Northeast Pacific transient population)
Designated Special Concern in April 1999. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report with an addendum.

Killer Whale (Northwest Atlantic / Eastern Arctic populations)
Species considered in April 1999 and in November 2001, and placed in the Data Deficient category. Last assessment based on an existing status report with an addendum.

King Rail
Designated Special Concern in April 1985. Status re-examined and designated Endangered in April 1994. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Kirtland's Warbler
Designated Endangered in April 1979. Status re-examined and confirmed in April 1999 and in May 2000. Last assessment based on an existing status report.

Labrador Duck
Believed to be Extinct since 1875. Designated in April 1985 based on historic records only. Status report prepared and approved by COSEWIC in 1994. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Lake Chubsucker
Designated Special Concern in April 1994. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report with an addendum.

Lake Utopia Dwarf Smelt
Designated Threatened in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Lake Whitefish (Mira River population)
Species considered in April 1999 and in November 2000, and placed in the Data Deficient category. Last assessment based on an existing status report.

Large Whorled Pogonia
Designated Endangered in April 1986. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Least Bittern
Designated Special Concern in April 1988. Status re-examined and confirmed in April 1999. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report.

Leatherback Seaturtle
Designated Endangered in April 1981. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

Lewis's Woodpecker
Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Limnetic Enos Lake Stickleback
Original designation (including both Benthic and Limnetic species) was Threatened in April 1988. Split into two species when re-examined in November 2002 and the Limnetic Enos Lake Stickleback was designated Endangered. Last assessment based on an update status report.

Limnetic Hadley Lake Stickleback
Extinct in 1999. Designated Extinct in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Limnetic Paxton Lake Stickleback
Designated Threatened in April 1998. Status re-examined and confirmed in April 1999. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Limnetic Vananda Creek Stickleback
Designated Threatened in April 1999. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Loggerhead Shrike
The species was considered a single unit and designated Threatened in April 1986. The *excubitorides* and the *migrans* subspecies were designated separately in April 1991, and the original designation was de-activated.

Loggerhead Shrike *excubitorides* subspecies
The species was considered a single unit and designated Threatened in April 1986. Split according to subspecies in April 1991. The *excubitorides* subspecies retained the original Threatened designation from April 1986. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Loggerhead Shrike *migrans* subspecies
The species was considered a single unit and designated Threatened in April 1986. Split according to subspecies in April 1991. The *migrans* subspecies was designated Endangered in April 1991. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Long-billed Curlew
Designated Special Concern in April 1992. Status re-examined and confirmed in November 2002. Last assessment based on an update status report.

Longjaw Cisco
Extinct since 1975. Designated Extinct in April 1985. Status re-examined and confirmed in May 2000. Designation de-activated in May 2002 because it was concluded that this species is a synonym of the Shortjaw Cisco, *Coregonus zenithicus*, which was designated Threatened in 1987. Last assessment based on an update status report.

Long's Braya
Designated Endangered in April 1997. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report with an addendum.

Louisiana Waterthrush
Designated Special Concern in April 1991. Status re-examined and confirmed in April 1996.

Mackenzie Hairgrass
Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Marbled Murrelet
Designated Threatened in April 1990. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Margined Madtom
Designated Threatened in April 1989. Species considered in May 2002 and placed in the Data Deficient category. Last assessment based on an update status report.

Maritime Ringlet
Designated Endangered in April 1997. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Massasauga
Designated Threatened in April 1991. Status re-examined and confirmed in November 2002. Last assessment based on an update status report.

Mexican Mosquito-fern
Designated Threatened in April 1984. Status re-examined and confirmed in April 1998 and in May 2000. Last assessment based on an existing status report.

Monarch
Designated Special Concern in April 1997. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Morrison Creek Lamprey
Designated Threatened in April 1999. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report.

Mountain Beaver
Designated Not at Risk in April 1984. Status re-examined and designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Mountain Plover
Designated Endangered in April 1987. Status re-examined and confirmed November 2000. Last assessment based on an update status report.

Narwhal
Designated Not at Risk in April 1986 and in April 1987.

New Jersey Rush
Designated Special Concern in April 1992. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Newfoundland Marten
Designated Not at Risk in April 1979. Status re-examined and designated Threatened in April 1986. Status re-examined and designated Endangered in April 1996. Status re-examined and confirmed Endangered in May 2000. Last assessment based on an existing status report.

Nodding Pogonia
Designated Threatened in April 1988. Status re-examined and designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Nooksack Dace
Designated Endangered in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

North Atlantic Right Whale
The Right Whale was considered a single species and designated Endangered in 1980. Status re-examined and confirmed in April 1985 and in April 1990. Split into two species in May 2003 to allow a separate designation of the North Atlantic Right Whale. North Atlantic Right Whale was designated Endangered in May 2003. Last assessment based on an update status report.

North Pacific Right Whale
The Right Whale was considered a single species and designated Endangered in 1980. Status re-examined and confirmed in April 1985 and in April 1990. Split into two species in May 2003. North Pacific Right Whale was not re-evaluated, but retains the Endangered status of the original Right Whale. Last assessment based on an update status report.

Northern Abalone
Designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Northern Bobwhite
Designated Endangered in April 1994. Status re-examined and confirmed in November 2003. Last assessment based on an update status report.

Northern Bottlenose Whale
The Northern Bottlenose Whale was given a single designation of Not at Risk in April 1993. Split into two populations in April 1996 to allow a separate designation of the Northern Bottlenose Whale (Scotian Shelf population). Northern Bottlenose (Davis Strait population) was not re-evaluated, but retains the Not at Risk designation of the original Northern Bottlenose Whale, and the latter was de-activated.

Northern Bottlenose Whale (Scotian Shelf population)
The Northern Bottlenose Whale was given a single designation of Not at Risk in April 1993. Split into two populations in April 1996 to allow a separate designation of the Northern Bottlenose Whale (Scotian Shelf population). Scotian Shelf population designated Special Concern in April 1996. Status re-examined and designated Endangered in November 2002. Last assessment based on an existing status report with an addendum.

Northern Cricket Frog
Designated Endangered in April 1990. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

Northern Goshawk *laingi* subspecies
Designated Special Concern in April 1995. Status re-examined and designated Threatened in November 2000. Last assessment based on an update status report.

Northern Leopard Frog (Southern Mountain population)
Designated Endangered in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Northern Leopard Frog (Western Boreal/Prairie populations)
Designated Special Concern in April 1998. Status re-examined and confirmed in November 2002. Last assessment based on an existing status report.

Northern Madtom
Species considered in April 1993 and placed in the Data Deficient category. Re-examined in April 1998 and designated Special Concern. Status re-examined and designated Endangered in November 2002. Last assessment based on an existing status report with an addendum.

Northern Riffleshell
Designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report with an addendum.

Nuttall's Cottontail *pinetis* subspecies
Designated Not at Risk in 1991 and in April 1994.

Oregon Spotted Frog
Designated Endangered in an emergency assessment in November 1999. Status re-examined and confirmed in May 2000. Assessment based on a new status report.

Pacific Sardine
Designated Special Concern in April 1987. Status re-examined and designated Not at Risk in May 2002. Last assessment based on an update status report.

Pacific Water Shrew
Designated Threatened in April 1994. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report with an addendum.

Paddlefish
Disappeared from Canada in approximately 1917. Designated Extirpated in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Pallid Bat
Designated Special Concern in April 1988. Status re-examined and designated Threatened in May 2000. Last assessment based on an update status report.

Passenger Pigeon
Believed to be Extinct since 1914. Designated in April 1985 based on historic records only. Status report prepared and approved by COSEWIC in 1994. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Peary Caribou
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island (Endangered), High Arctic (Endangered) and Low Arctic (Threatened) populations. In May 2004 all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The subspecies pearyi is comprised of a portion of the former "Low Arctic population", and all of the former "High Arctic" and "Banks Island" populations, and it was designated Endangered in May 2004. Last assessment based on an update status report.

Peary Caribou [original designation]
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split into three separate populations in April 1991: Banks Island, High Arctic and Low Arctic populations. The original designation was de-activated. In May 2004, all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*.

Peary Caribou (Banks Island population)
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island, High Arctic and Low Arctic populations. The Banks Island population was designated Endangered in April 1991. In May 2004, all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The former Banks Island population is contained within the subspecies *pearyi*.

Peary Caribou (High Arctic population)
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island, High Arctic and Low Arctic populations. The High Arctic population of the Peary Caribou was designated Endangered in April 1991. In May 2004, all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The former High Arctic population is contained within the subspecies *pearyi*.

Peary Caribou (Low Arctic population)
The original designation considered a single unit that included Peary Caribou, *Rangifer tarandus pearyi*, and what is now known as the Dolphin and Union population of the Barren-ground Caribou, *Rangifer tarandus groenlandicus*. It was assigned a status of Threatened in April 1979. Split to allow designation of three separate populations in 1991: Banks Island, High Arctic and Low Arctic populations. The Low Arctic population was designated Threatened in April 1991. In May 2004, all three population designations were de-activated, and the Peary Caribou, *Rangifer tarandus pearyi*, was assessed separately from the Barren-ground Caribou (Dolphin and Union population), *Rangifer tarandus groenlandicus*. The former Low Arctic population is contained partly within the subspecies *pearyi* and partly within the Barren-ground Caribou (Dolphin and Union population).

Peregrine Falcon *anatum* subspecies
Designated Endangered in April 1978. Status re-examined and designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Peregrine Falcon *pealei* subspecies
Designated Special Concern in April 1978. Status re-examined and confirmed in April 1999 and in November 2001. Last assessment based on an existing status report.

Peregrine Falcon *tundrius* subspecies
Designated Threatened in April 1978. Status re-examined and designated Special Concern in April 1992.

Phantom Orchid
Designated Special Concern in April 1992. Status re-examined and designated Threatened in May 2000. Last assessment based on an update status report.

Pighead Prickleback
Designated Special Concern in April 1989. Species considered in May 2003 and placed in the Data Deficient category. Last assessment based on an update status report.

Pigmy Short-horned Lizard (British Columbia population)
Last reported in 1898. Designated Extirpated in April 1992. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Pink Coreopsis
Designated Endangered in April 1984. Status re-examined and confirmed Endangered in April 1999 and in May 2000. Last assessment based on an existing status report.

Pink Milkwort
Designated Endangered in April 1984. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Piping Plover
The species was considered a single unit and designated Threatened in April 1978. Status re-examined and designated Endangered in April 1985. In May 2001, the species was re-examined and split into two groups according to subspecies. The *melodus* subspecies and *circumcinctus* subspecies were each designated Endangered in May 2001. The original designation was de-activated.

Piping Plover *circumcinctus* subspecies
The species was considered a single unit and designated Threatened in April 1978. Status re-examined and designated Endangered in April 1985. In May 2001, the species was re-examined and split into two groups according to subspecies. The *circumcinctus* subspecies was designated Endangered in May 2001. Last assessment based on an update status report.

Piping Plover *melodus* subspecies
The species was considered a single unit and designated Threatened in April 1978. Status re-examined and designated Endangered in April 1985. In May 2001, the species was re-examined and split into two groups according to subspecies. The *melodus* subspecies was designated Endangered in May 2001. Last assessment based on an update status report.

Pitcher's Thistle
Designated Threatened in April 1988. Status re-examined and designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Pixie Poacher
Species considered in April 1991 and placed in the Data Deficient category. Re-examined and designation de-activated in November 2001. Last assessment based on an update status report.

Plains Pocket Gopher
Designated Special Concern in April 1979. Status re-examined and designated Not at Risk in April 1998.

Plymouth Gentian
Designated Threatened in April 1984. Status re-examined and confirmed in April 1999 and in May 2000. Last assessment based on an existing status report.

Polar Bear
Designated Not at Risk in April 1986. Status re-examined and designated Special Concern in April 1991. Status re-examined and confirmed in April 1999 and in November 2002. Last assessment based on an existing status report with an addendum.

Prairie Falcon
Designated Not at Risk in April 1978, April 1982 and April 1996.

Prairie Long-tailed Weasel
Designated Threatened in April 1982. Status re-examined and designated Not at Risk in April 1993.

Prairie Lupine
Designated Endangered in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Prairie Skink
Designated Special Concern in April 1989. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Prairie Warbler
Designated Special Concern in April 1985. Status re-examined and designated Not at Risk in April 1999.

Prothonotary Warbler
Designated Special Concern in April 1984. Status re-examined and designated Endangered in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Pugnose Minnow
Designated Special Concern in April 1985. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Pugnose Shiner
Designated Special Concern in April 1985. Status re-examined and designated Endangered in November 2002. Last assessment based on an update status report.

Purple Twayblade
Designated Threatened in April 1989. Status re-examined and designated Endangered in April 1999. Status re-examined and confirmed in May 2001. Last assessment based on an existing status report that was modified.

Queen Snake
Designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Rayed Bean
Designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Red Mulberry
Designated Threatened in April 1987. Status re-examined and designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Red-legged Frog
Designated Special Concern in April 1999. Status re-examined and confirmed in May 2002. Last assessment based on an existing status report.

Redroot
Designated Threatened in April 1994. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Red-shouldered Hawk
Designated Special Concern in April 1983. Status re-examined and confirmed in April 1996.

Right Whale
The Right Whale was considered a single species and designated Endangered in 1980. Status re-examined and confirmed in April 1985 and in April 1990. Split into two species in May 2003 to allow a separate designation of the North Atlantic Right Whale. North Pacific Right Whale was not re-evaluated, but retains the Endangered status of the original Right Whale. The original designation was de-activated. Last assessment based on an update status report.

Rigid Apple Moss
Designated Threatened in April 1997. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report with an addendum.

River Redhorse
Designated Special Concern in April 1983. Status re-examined and confirmed in April 1987.

Roseate Tern
Designated Threatened in April 1986. Status re-examined and designated Endangered in April 1999. Endangered status re-examined and confirmed in October 1999. Last assessment based on an existing status report.

Ross's Gull
Designated Special Concern in April 1981. Status re-examined and confirmed in April 1996. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report with an addendum.

Round-leaved Greenbrier (Great Lakes Plains population)
Designated Threatened in April 1994. Status re-examined and confirmed in May 2001. Last assessment based on an existing status report with an addendum.

Sage Thrasher
Designated Endangered in April 1992. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Salish Sucker
Designated Endangered in April 1986. Status re-examined and confirmed in November 2002. Last assessment based on an update status report.

Savannah Sparrow *princeps* subspecies
Designated Special Concern in April 1979. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Scarlet Ammannia
Designated Endangered in April 1999. Status re-examined and confirmed in May 2001. Last assessment based on an existing status report.

Sea Mink
Believed Extinct since 1894. Designated Extinct in April 1986. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Sea Otter
Designated Endangered in April 1978. Status re-examined and confirmed Endangered in April 1986. Status re-examined and designated Threatened in April 1996. Status re-examined and confirmed Threatened in May 2000. Last assessment based on an existing status report.

Seaside Birds-foot Lotus
Designated Endangered in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Seaside Centipede
Designated Endangered in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Sharp-shinned Hawk
Designated Not at Risk in April 1986 and in April 1997.

Sharp-tailed Snake
Designated Endangered in April 1999. Status re-examined and confirmed in October 1999. Last assessment based on an existing status report.

Shorthead Sculpin
Designated Threatened in April 1984. Status re-examined and confirmed Threatened in May 2001. Last assessment based on an update status report.

Shortjaw Cisco
Designated Threatened in April 1987. Status re-examined and confirmed in May 2003. Last assessment based on an update status report.

Showy Goldenrod
Designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Shumard Oak
Designated Special Concern in April 1984. Status re-examined and confirmed in April 1999.

Silver Chub
Designated Special Concern in April 1985. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

Silver Shiner
Designated Special Concern in April 1983. Status re-examined and confirmed in April 1987.

Skinner's Agalinis
Designated Endangered in April 1988. Status re-examined and confirmed Endangered in April 1999 and in May 2000. Last assessment based on an existing status report.

Slender Bush-clover
Designated Endangered in April 1986. Status re-examined and confirmed Endangered in April 1999 and in May 2000. Last assessment based on an existing status report.

Slender Mouse-ear-cress
Designated Endangered in April 1992. Status re-examined and designated Threatened in May 2000. Last assessment based on an update status report with an addendum.

Small White Lady's-slipper
Designated Endangered in April 1981. Status re-examined and confirmed in April 1999 and in May 2000. Last assessment based on an existing status report.

Small Whorled Pogonia
Designated Endangered in April 1982. Status re-examined and confirmed in April 1998 and in May 2000. Last assessment based on an existing status report.

Small-flowered Lipocarpha
Designated Threatened in April 1992. Status re-examined and designated Endangered in November 2002. Last assessment based on an update status report.

Small-flowered Sand-verbena
Designated Threatened in April 1992. Re-examined and designated Endangered in November 2002. Last assessment based on an update status report.

Small-mouthed Salamander
Designated Special Concern in April 1991. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Soapweed
Designated Special Concern in April 1985. Status re-examined and designated Threatened in May 2000. Last assessment based on an update status report.

Sockeye Salmon (Cultus population)
Designated Endangered in an emergency assessment in October 2002. Status re-examined and confirmed in May 2003. Assessment based on a new status report.

Sockeye Salmon (Sakinaw population)
Designated Endangered in an emergency assessment in October 2002. Status re-examined and confirmed in May 2003. Assessment based on a new status report.

Southern Maidenhair Fern
Designated Endangered in April 1984. Status re-examined and confirmed in April 1998 and in May 2000. Last assessment based on an existing status report.

Speckled Dace
Designated Special Concern in April 1980. Status re-examined and designated Endangered in November 2002. Last assessment based on an update status report.

Spiny Softshell
Designated Threatened in April 1991. Status re-examined and confirmed in May 2002. Last assessment based on an update status report.

Spotted Bat
Designated Special Concern in April 1988. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Spotted Gar
Designated Special Concern in April 1983. Status re-examined and confirmed in April 1994. Status re-examined and designated Threatened in November 2000. Last assessment based on an existing status report.

Spotted Owl *caurina* subspecies
Designated Endangered in April 1986. Status re-examined and confirmed in April 1999 and in May 2000. Last assessment based on an existing status report.

Spotted Sucker
Designated Special Concern in April 1983. Status re-examined and confirmed in April 1994 and in November 2001. Last assessment based on an existing status report with an addendum.

Spotted Turtle
Designated Special Concern in April 1991. Status re-examined and designated Endangered in May 2004. Last assessment based on an update status report.

Spotted Wintergreen
Designated Endangered in April 1987. Status re-examined and confirmed Endangered in April 1998 and in May 2000. Last assessment based on an existing status report.

Sprague's Pipit
Designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Spring Blue-eyed Mary
No site records since 1954. Designated Extirpated in April 1987. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Spring Salamander
Designated Special Concern in April 1999. Status re-examined and confirmed in May 2002. Last assessment based on an existing status report.

Steller Sea Lion
Designated Not at Risk in April 1987. Status re-examined and designated Special Concern in November 2003. Last assessment based on an update status report.

Sweet Pepperbush
Designated Threatened in April 1986. Status re-examined and confirmed in April 1998. Status re-examined and designated Special Concern in May 2001. Last assessment based on an existing status report that was modified.

Swift Fox
Last seen in Saskatchewan in 1928. Designated Extirpated in April 1978. Status re-examined and designated Endangered in April 1998 after successful re-introductions. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Thread-leaved Sundew
Designated Endangered in April 1991. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

Tiny Cryptanthe
Designated Endangered in April 1998. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Toothcup
Designated Endangered in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Townsend's Mole
Designated Threatened in April 1996. Status re-examined and designated Endangered in May 2003. Last assessment based on an update status report.

Trumpeter Swan
Designated Special Concern in April 1978. Status re-examined and designated Not at Risk in April 1996.

Tuberous Indian-plantain
Designated Special Concern in April 1988. Status re-examined and confirmed in April 1999 and in May 2002. Last assessment based on an update status report that was modified.

Tyrrell's Willow
Designated Threatened in April 1981. Status re-examined and designated Not at Risk in April 1999.

Van Brunt's Jacob's-ladder
Designated Threatened in April 1994. Status re-examined and confirmed in November 2002. Last assessment based on an update status report.

Vancouver Island Marmot
Designated Endangered in April 1978. Status re-examined and confirmed Endangered in April 1997 and in May 2000. Last assessment based on an existing status report with an addendum.

Victorin's Gentian
Designated Special Concern in April 1987. Status re-examined and designated Threatened in May 2004. Last assessment based on an update status report.

Victorin's Water-hemlock
Designated Special Concern in April 1987. Status re-examined and confirmed in May 2004. Last assessment based on an update status report.

Virginia Goat's-rue
Designated Threatened in April 1996. Status re-examined and designated Endangered in May 2000. Last assessment based on an existing status report with an addendum.

Warmouth
Designated Special Concern in April 1994. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report with an addendum.

Water-pennywort
Designated Endangered in April 1985. Status re-examined and designated Threatened in April 1999. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Water-plantain Buttercup
Designated Endangered in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Wavy-rayed Lampmussel
Designated Endangered in April 1999. Status re-examined and confirmed in October 1999. Last assessment based on an existing status report.

Western Blue-flag
Designated Threatened in April 1990. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Western Prairie Fringed-orchid
Designated Endangered in April 1993. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Western Screech-Owl
The species was considered a single unit and placed in the Data Deficient category in April 1995. Re-examined in May 2002 and split into two groups according to subspecies. The *kennicottii* subspecies was designated Special Concern and the *macfarlanei* subspecies was designated Threatened in May 2002. The original designation was de-activated. Last assessment based on an update status report.

Western Screech-Owl *kennicottii* subspecies
Species considered in April 1995 and placed in the Data Deficient category. It was split according to subspecies in May 2002. The *kennicottii* subspecies was designated Special Concern in May 2002. Last assessment based on an update status report.

Western Screech-Owl *macfarlanei* subspecies
Species considered in April 1995 and placed in the Data Deficient category. It was split according to subspecies in May 2002. The *macfarlanei* subspecies was designated Endangered in May 2002. Last assessment based on an update status report.

Western Silvery Aster
Designated Special Concern in 1988. Status re-examined and designated Threatened in May 2000. Last assessment based on an update status report.

Western Silvery Minnow
Designated Special Concern in April 1997. Status re-examined and designated Threatened in November 2001. Last assessment based on an existing status report with an addendum.

Western Spiderwort
Designated Threatened in April 1992. Status re-examined and confirmed in November 2002. Last assessment based on an update status report.

White Prairie Gentian
Designated Endangered in April 1991. Status re-examined and confirmed in May 2001. Last assessment based on an update status report.

White Sturgeon
Designated Special Concern in April 1990. Status re-examined and designated Endangered in November 2003. Last assessment based on an update status report.

White Wood Aster
Designated Threatened in April 1995. Status re-examined and confirmed in November 2002. Last assessment based on an update status report.

White-headed Woodpecker
Designated Threatened in April 1992. Status re-examined and designated Endangered in November 2000. Last assessment based on an update status report.

White-top Aster
Designated Threatened in April 1996. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report with an addendum.

Whooping Crane
Designated Endangered in April 1978. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

Wild Hyacinth
Designated Special Concern in April 1990. Re-examined and designated Threatened in May 2002. Last assessment based on an update status report.

Willowleaf Aster
Designated Special Concern in April 1999. Status re-examined and designated Threatened in May 2003. Last assessment based on an existing status report.

Wolverine
The species was considered a single unit and designated Special Concern in April 1982. Split into two populations in April 1989 (Western and Eastern populations). The original designation was de-activated.

Wolverine (Eastern population)
The species was considered a single unit and designated Special Concern in April 1982. Split into two populations in April 1989 (Western population and Eastern population). The Eastern population was designated Endangered in April 1989. Status re-examined and confirmed in May 2003. Last assessment based on an update status report.

Wolverine (Western population)
The species was considered a single unit and designated Special Concern in April 1982. Split into two populations in April 1989 (Western and Eastern populations). The Western population was designated Special Concern in April 1989. Status re-examined and confirmed in May 2003. Last assessment based on an update status report.

Wood Bison
Designated Endangered in April 1978. Status re-examined and designated Threatened in April 1988. Status re-examined and confirmed in May 2000. Last assessment based on an update status report.

Woodland Caribou (Atlantic-Gaspésie population)
Atlantic-Gaspésie population designated Threatened in April 1984. Status re-examined and designated Endangered in May 2000. Status re-examined and confirmed in May 2002. Last assessment based on an update status report.

Woodland Caribou (Boreal population)
The Boreal population was designated Threatened in May 2000. This newly-defined population is comprised of a portion of the de-activated "Western population" and all of the de-activated "Labrador-Ungava population". Status re-examined and confirmed in May 2002. Last assessment based on an update status report.

Woodland Caribou (Labrador-Ungava population)
Labrador-Ungava population was designated Not at Risk in April 1984. The designation of the Labrador-Ungava population was de-activated in May 2000. The former Labrador-Ungava population is contained within the Boreal population.

Woodland Caribou (Newfoundland population)
Newfoundland population was designated Not at Risk in April 1984. Status re-examined and confirmed in May 2000 and in May 2002. Last assessment based on an update status report.

Woodland Caribou (Northern Mountain population)
The Northern Mountain population was designated Not at Risk in May 2000. This population was formerly designated as part of the "Western population" (now de-activated). Status re-examined and designated Special Concern in May 2002. Last assessment based on an update status report.

Woodland Caribou (Southern Mountain population)
The Southern Mountain population was designated Threatened in May 2000. This population was formerly designated as part of the "Western population" (now de-activated). Status re-examined and confirmed in May 2002. Last assessment based on an update status report.

Woodland Caribou (Western population)
The Western population was designated Special Concern in April 1984. The designation of the Western population was de-activated in May 2000. The former Western population is contained within the following newly designated populations: Northern Mountain, Southern Mountain and Boreal.

Woodland Vole
Designated Special Concern in April 1998.Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Wood-poppy
Designated Endangered in April 1993. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report with an addendum.

Yellow Montane Violet
Designated Threatened in April 1995. Status re-examined and confirmed in May 2000. Last assessment based on an existing status report.

Yellow Rail
Designated Special Concern in April 1999. Status re-examined and confirmed in November 2001. Last assessment based on an existing status report.

Yellow-breasted Chat *auricollis* subspecies (British Columbia population)
The British Columbia population of the *auricollis* subspecies was designated Threatened in April 1994. Status re-examined and designated Endangered in November 2000. Last assessment based on an update status report.

Yellow-breasted Chat *auricollis* subspecies (Prairie population)
The Prairie population of the *auricollis* subspecies was designated Not at Risk in April 1994 and in November 2000. Last assessment based on an update status report.

Yellow-breasted Chat *virens* subspecies
Designated Special Concern in April 1994. Status re-examined and confirmed in November 2000. Last assessment based on an update status report.

RECORD OF NAME CHANGES

Common and scientific names (including population names, where applicable) previously used by COSEWIC, and other synonyms.

Previous Name(s) or Synonym	Current Common Name or Scientific Name (population)
Abronia micrantha	*Tripterocalyx micranthus*
Acadian Whitefish	Atlantic Whitefish
Acris crepitans blanchardi	*Acris crepitans*
American Marten (Newfoundland population)	Newfoundland Marten
Anatum Peregrine Falcon	Peregrine Falcon *anatum* subspecies
Apple Moss	Rigid Apple Moss
Ascaphus truei (Pacific Coast population)	*Ascaphus truei*
Ascaphus truei (Southern Mountain population)	*Ascaphus montanus*
Asplenium scolopendrium var. *americanum*	*Asplenium scolopendrium*
Aster anticostensis	*Symphyotrichum anticostense*
Aster curtus	*Sericocarpus rigidus*
Aster divaricatus	*Eurybia divaricata*
Aster laurentianus	*Symphyotrichum laurentianum*
Aster praealtus	*Symphyotrichum praealtum*
Aster prenanthoides	*Symphyotrichum prenanthoides*
Aster shortii	*Symphyotrichum shortii*
Aster subulatus var. *obtusifolius*	*Symphyotrichum subulatum* (Bathurst population)
Aster yukonensis	*Symphyotrichum yukonense*
Bathurst Aster	Bathurst Aster (Bathurst population)
Beluga Whale (Beaufort Sea / Arctic Ocean population)	Beluga Whale (Eastern Beaufort Sea population)
Beluga Whale (Southeast Baffin Island-Cumberland Sound population)	Beluga Whale (Cumberland Sound population)
Beluga Whale (St. Lawrence River population)	Beluga Whale (St. Lawrence Estuary population)
Benthic Texada Island Stickleback	Benthic Paxton Lake Stickleback
Black Rat Snake	Eastern Ratsnake
Black Ratsnake	Eastern Ratsnake
Blackline Prickleback	Pighead Prickleback
Blanchard's Cricket Frog	Northern Cricket Frog
Blue-eyed Mary	Spring Blue-eyed Mary
Bowl Limpet	Eelgrass Limpet
Bufo woodhousii fowleri	*Bufo fowleri*
Butler's Garter Snake	Butler's Gartersnake
Cacalia plantaginea	*Arnoglossum plantagineum*
Centrocercus urophasianus phaios (British Columbia population)	*Centrocercus urophasianus phaios*
Centrocercus urophasianus urophasianus (Prairie population)	*Centrocercus urophasianus urophasianus*
Charlotte Unarmoured Sticklebacks	Charlotte Unarmoured Stickleback
Cimicifuga elata	*Actaea elata*
Clemmys insculpta	*Glyptemys insculpta*
Clemmys marmorata	*Actinemys marmorata*
Coeur d'Alène Salamander	Coeur d'Alene Salamander

Previous Name(s) or Synonym	Current Common Name or Scientific Name (population)
Common Hop-tree	Common Hoptree
Common Watersnake	Northern Watersnake
Coregonus canadensis	*Coregonus huntsmani*
Delphinapterus leucas (Beaufort Sea / Arctic Ocean population)	*Delphinapterus leucas* (Eastern Beaufort Sea population)
Delphinapterus leucas (Southeast Baffin Island-Cumberland Sound population)	*Delphinapterus leucas* (Cumberland Sound population)
Delphinapterus leucas (St. Lawrence River population)	*Delphinapterus leucas* (St. Lawrence Estuary population)
Eastern Fox Snake	Eastern Foxsnake
Eastern Grey Wolf	Eastern Wolf
Eastern Hognosed Snake	Eastern Hog-nosed Snake
Eastern Loggerhead Shrike	Loggerhead Shrike *migrans* subspecies
Eastern Massasauga	Massasauga
Eastern Massasauga Rattlesnake	Massasauga
Eastern Milksnake	Milksnake
Eastern Prairie Fringed Orchid	Eastern Prairie Fringed-orchid
Eastern Short-horned Lizard	Greater Short-horned Lizard
Eastern Spiny Softshell Turtle	Spiny Softshell
Eastern Yellow-breasted Chat	Yellow-breasted Chat *virens* subspecies
Elaphe obsoleta obsoleta	*Elaphe obsoleta*
Elaphe vulpina gloydi	*Elaphe gloydi*
Elgaria coerulea principis	*Elgaria coerulea*
Emydoidea blandingi	*Emydoidea blandingii* (Nova Scotia population)
Erigeron philadelphicus ssp. *provancheri*	*Erigeron philadelphicus* var. *provancheri*
Ermine (Queen Charlotte Islands population)	Ermine *haidarum* subspecies
Eschrichtius robustus (Northeast Pacific population)	*Eschrichtius robustus* (Eastern North Pacific population)
Eumeces septentrionalis septentrionalis	*Eumeces septentrionalis*
Few-flowered Club-rush	Bashful Bulrush
Gasterosteus aculeatus	*Gasterosteus* sp.
Gentiana victorinii	*Gentianopsis procera* ssp. *macounii* var. *victorinii*
Gentianopsis victorinii	*Gentianopsis procera* ssp. *macounii* var. *victorinii*
Goat's-rue	Virginia Goat's-rue
Great Basin Gopher Snake	Great Basin Gophersnake
Great Basin Spadefoot Toad	Great Basin Spadefoot
Greater Sandhill Crane	Sandhill Crane *tabida* subspecies
Grey Whale (Northeast Pacific population)	Grey Whale (Eastern North Pacific population)
Grey Wolf	Arctic Grey Wolf
Grey Wolf	Southern Grey Wolf
Grey Wolf	Eastern Wolf
Grey Wolf	Northern Grey Wolf
Grizzly Bear [no population name]	Grizzly Bear (Northwestern population)
Gymnocladus dioica	*Gymnocladus dioicus*
Haplopappus macleanii	*Stenotus borealis*
Harbour Seal	Harbour Seal Atlantic subspecies
Harbour Seal	Harbour Seal Pacific subspecies

Previous Name(s) or Synonym	Current Common Name or Scientific Name (population)
Harbour Seal (Lac des Loups Marins landlocked population)	Harbour Seal Lacs des Loups Marins subspecies
Hubb's Beaked Whale	Hubbs' Beaked Whale
Hyperoodon ampullatus (Gully population)	*Hyperoodon ampullatus* (Scotian Shelf population)
Icteria virens virens (Eastern population)	*Icteria virens virens*
Incisalia irus	*Callophrys* [*Incisalia*] *irus*
"Ipswich" Savannah Sparrow	Savannah Sparrow *princeps* subspecies
Isopyrum biternatum	*Enemion biternatum*
Killer Whale (North Pacific "resident" populations)	Killer Whale (North Pacific resident populations)
Lake Erie Water Snake	Lake Erie Watersnake
Lake Lamprey	Cowichan Lake Lamprey
Lake Simcoe Whitefish	Lake Whitefish (Lake Simcoe population)
Lanius ludovicianus excubitorides (Prairie population)	*Lanius ludovicianus excubitorides*
Lanius ludovicianus migrans (Eastern population)	*Lanius ludovicianus migrans*
Leatherback Turtle	Leatherback Seaturtle
Lilaeopsis	Eastern Lilaeopsis
Limnetic Texada Island Stickleback	Limnetic Paxton Lake Stickleback
Loggerhead Shrike (Eastern population)	Loggerhead Shrike *migrans* subspecies
Loggerhead Shrike (Prairie population)	Loggerhead Shrike *excubitorides* subspecies
Long-tailed Weasel (Prairie population)	Prairie Long-tailed Weasel
Lottia alveus	*Lottia alveus alveus*
Lynx	Canada Lynx
MacLean's Goldenweed	Northern Mock Goldenweed
Martes americana atrata (Newfoundland population)	*Martes americana atrata*
Mexican Mosquito Fern	Mexican Mosquito-fern
Mira River Whitefish	Lake Whitefish (Mira River population)
Mountain Dusky Salamander	Allegheny Mountain Dusky Salamander
Mustela erminea haidarum (Queen Charlotte Islands population)	*Mustela erminea haidarum*
Mustela frenata longicauda (Prairie population)	*Mustela frenata longicauda*
Night Snake	Nightsnake
North Sea Beaked Whale	Sowerby's Beaked Whale
Northern Bottlenose Whale	Northern Bottlenose Whale (Davis Strait population)
Northern Bottlenose Whale (Gully population)	Northern Bottlenose Whale (Scotian Shelf population)
Northern Goshawk	Northern Goshawk *atricapillus* subspecies
Northern Leopard Frog (Prairie population)	Northern Leopard Frog (Western Boreal/Prairie populations)
Northern Prairie Skink	Prairie Skink
Northern Red-legged Frog	Red-legged Frog
Northern Ribbonsnake (Atlantic population)	Eastern Ribbonsnake (Atlantic population)
Northern Ribbonsnake (Great Lakes population)	Eastern Ribbonsnake (Great Lakes population)
Northern Spotted Owl	Spotted Owl *caurina* subspecies
Northwestern Alligator Lizard	Northern Alligator Lizard
Notropis rubellus (Eastern population)	*Notropis rubellus*

Previous Name(s) or Synonym	Current Common Name or Scientific Name (population)
Notropis rubellus (Manitoba population)	*Notropis percobromus*
Nuttall's Cottontail (British Columbia population)	Nuttall's Cottontail *nuttallii* subspecies
Nuttall's Cottontail (Prairie population)	Nuttall's Cottontail *pinetis* subspecies
Nyctea scandiaca	*Bubo scandiaca*
Oncorhynchus nerka (Cultus Lake population)	*Oncorhynchus nerka* (Cultus population)
Oncorhynchus nerka (Sakinaw Lake population)	*Oncorhynchus nerka* (Sakinaw population)
Orcinus orca (North Pacific "resident" populations)	*Orcinus orca* (North Pacific resident populations)
Otus asio	*Megascops asio*
Otus kennicottii	*Megascops kennicottii*
Otus kennicottii kennicottii	*Megascops kennicottii kennicottii*
Otus kennicottii macfarlanei	*Megascops kennicottii macfarlanei*
Pacific Giant Salamander	Coastal Giant Salamander
Pacific Gopher Snake	Pacific Gophersnake
Pacific Great Blue Heron	Great Blue Heron *fannini* subspecies
Panax quinquefolium	*Panax quinquefolius*
Peale's Peregrine Falcon	Peregrine Falcon *pealei* subspecies
Phoca vitulina mellonae (Lac des Loups Marins landlocked population)	*Phoca vitulina mellonae*
Phrynosoma douglassii brevirostre	*Phrynosoma hernandesi*
Phrynosoma douglassii douglassii (British Columbia population)	*Phrynosoma douglasii* (British Columbia population)
Pink Rush	Rush Pink
Plains Spadefoot Toad	Plains Spadefoot
Polemonium van-bruntiae	*Polemonium vanbruntiae*
Prairie Loggerhead Shrike	Loggerhead Shrike *excubitorides* subspecies
Pygmy Short-horned Lizard (British Columbia population)	Pigmy Short-horned Lizard (British Columbia population)
Queen Charlotte Goshawk	Northern Goshawk *laingi* subspecies
Rana pipiens (Prairie population)	*Rana pipiens* (Western Boreal/Prairie populations)
Rangifer tarandus dawsoni (Queen Charlotte Islands population)	*Rangifer tarandus dawsoni*
Reithrodontomys megalotis dychei (Prairie population)	*Reithrodontomys megalotis dychei*
Reithrodontomys megalotis megalotis (British Columbia population)	*Reithrodontomys megalotis megalotis*
Ross' Gull	Ross's Gull
Rosyface Shiner (Eastern population)	Rosyface Shiner
Rosyface Shiner (Manitoba population)	Carmine Shiner
Sage Grouse (British Columbia population)	Greater Sage-Grouse *phaios* subspecies
Sage Grouse (Prairie population)	Greater Sage-Grouse *urophasianus* subspecies
Salamander Mussel	Mudpuppy Mussel
Sand Verbena	Small-flowered Sand-verbena
Sand Verbena Moth	Sand-verbena Moth
Scirpus verecundus	*Trichophorum planifolium*
Simpsonais ambigua	*Simpsonaias ambigua*
Sistrurus catenatus catenatus	*Sistrurus catenatus*
Slender Wooly-heads	Slender Woolly-heads

Previous Name(s) or Synonym	Current Common Name or Scientific Name (population)
Smallmouth Salamander	Small-mouthed Salamander
Sockeye Salmon (Cultus Lake population)	Sockeye Salmon (Cultus population)
Sockeye Salmon (Sakinaw Lake population)	Sockeye Salmon (Sakinaw population)
Solidago speciosa var. *rigidiuscula*	*Solidago speciosa*
Speotyto cunicularia	*Athene cunicularia*
Spiny Softshell Turtle	Spiny Softshell
Spotted Owl	Spotted Owl *caurina* subspecies
Streaked Horned Lark	Horned Lark *strigata* subspecies
Strix occidentalis	*Strix occidentalis caurina*
Sylvilagus nuttallii nuttallii (British Columbia population)	*Sylvilagus nuttallii nuttallii*
Sylvilagus nuttallii pinetis (Prairie population)	*Sylvilagus nuttallii pinetis*
Tailed Frog (Pacific Coast population)	Coast Tailed Frog
Tailed Frog (Southern Mountain population)	Rocky Mountain Tailed Frog
Tortula laevipila	*Syntrichia laevipila*
Tundra Peregrine Falcon	Peregrine Falcon *tundrius* subspecies
Van Brunt's Jacob's Ladder	Van Brunt's Jacob's-ladder
Virgulus sericeus	*Symphyotrichum sericeum*
Western Harvest Mouse (British Columbia population)	Western Harvest Mouse *megalotis* subspecies
Western Harvest Mouse (Prairie population)	Western Harvest Mouse *dychei* subspecies
Western Prairie Fringed Orchid	Western Prairie Fringed-orchid
Western Silver-leaved Aster	Western Silvery Aster
Western Yellow-breasted Chat (Prairie population)	Yellow-breasted Chat *auricollis* subspecies (Prairie population)
Willow Aster	Willowleaf Aster
Woodland Caribou (Queen Charlotte Islands population)	Caribou *dawsoni* subspecies
Woodland Caribou Dawson's subspecies	Caribou *dawsoni* subspecies
Yellow-breasted Chat (British Columbia population)	Yellow-breasted Chat *auricollis* subspecies (British Columbia population)
Yellow-breasted Chat (Eastern population)	Yellow-breasted Chat *virens* subspecies
Yellow-breasted Chat (Prairie population)	Yellow-breasted Chat *auricollis* subspecies (Prairie population)

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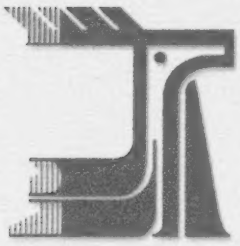

COSEWIC
Committee on the Status of Endangered Wildlife in Canada

COSEPAC
Comité sur la situation des espèces en péril au Canada

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was created in 1977 as a result of a recommendation at the Federal-Provincial Wildlife Conference held in 1976.

It arose from the need for a single, official, scientifically sound, national classification of wildlife species at risk.

In 1978, COSEWIC designated its first species and produced its first list of Canadian species at risk.

In 2002, COSEWIC celebrated 25 years of science-based assessment of the status of species at risk in Canada.

On June 5th 2003, the *Species at Risk Act* (SARA) was proclaimed. SARA establishes COSEWIC as an advisory body, ensuring that species will continue to be assessed under a rigorous and independent scientific process.

Environment Canada
Canadian Wildlife Service

Environnement Canada
Service canadien de la faune

Canada

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